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OF

ECONOMICS, POLITICS, AND SOCIOLOGY

EDITED BY

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MONOPOLIES AND TRUSTS

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PREFACE

IT will be helpful to specialists in economics, and perhaps to others, to know that the present volume is a small part of a large work, *The Distribution of Wealth*, and to be told what position it occupies in the general plan so far as at present elaborated.

The Distribution of Wealth, then, is divided into five main divisions, which may be termed Books, as follows: Book I. The Fundamentals in the Existing Socio-Economic Order as Viewed from the Stand-point of Distribution; Book II. The Separate Factors in Distribution; Book III. Individual Fortunes; Book IV. Actual and Contemplated Modifications of the Distribution of Wealth; Book V. Social Progress and Wealth Distribution. Book I. consists of nine "Parts," as follows: Part I. Public and Private Property; Part II. Contract and its Conditions; Part III. Vested Interests; Part IV. Personal Conditions; Part V. Custom; Part VI. Competition; Part VII. Monopoly; Part VIII. Public Authority; Part IX. Benevolence.

It will thus be seen that the discussion of Monopolies and Trusts is closely connected with other

portions of an extensive treatise, and this fact must be borne in mind by those who would understand its scientific character. The History of the Theory of Monopoly, as well as the "Part" of Book I. dealing with "Competition" and those portions of Book II. dealing with "Differential Gains" and "Surplus Value," have an especially close connection with this volume. It is the purpose of many of the foot-notes to bring out the relations of various other portions of this large work to the treatment of "Monopolies and Trusts," and thus to explain what otherwise might be regarded as omissions. Undoubtedly this explanation suggests certain disadvantages in the publication of one small part of a large work, when all the parts are closely related, but it is the only practicable method for so extensive a treatise as the author's work, *The Distribution of Wealth*; and it has its obvious advantages as well as its drawbacks.

Nothing could be further from the author's mind than to claim that this volume contains all the truth on the subjects which it discusses. He would like it rather to be regarded as an essay in the sense in which that word was used by early English writers. The development of industrial society has in the past brought many surprises, and doubtless the future will present quite as many and quite as startling ones. The author, then, simply ventures to hope that he has presented an original contribution to economic theory which will be further developed in the future by others and by himself. So far as

the immediately practical side of this discussion is concerned, it is to be said that the aim has been to go below surface phenomena to underlying causes, and thus to indicate in a general way the lines of progress.

RICHARD T. ELY.

MADISON, WIS., *October*, 1899.

EDITOR'S PREFACE

CITIZEN'S LIBRARY OF ECONOMICS, POLITICS, AND SOCIOLOGY

THE present volume is the first in a Library having the above title. It is hoped eventually to cover the three fields of knowledge indicated by the title in such way that the various series included in the Library will afford such complete information concerning the theory and facts of these sciences that the volumes will have some of the advantages of an encyclopedic work combined with those of separate and distinct treatises. To aid in the accomplishment of this purpose, it is planned to issue from time to time an index volume or supplement, binding together a series on closely related subjects. This Library thus includes new and valuable features, for it will give to the public a set of works affording information on topics of

importance to every citizen which must now be sought in a great multiplicity of sources, and often sought in vain.

The character of the writers and the management of the Library will be such as to inspire confidence. The utmost pains will be taken to secure the greatest possible accuracy in all statistical tables and statements of fact and theory, and no partisan bias will disturb the conclusions. It is the conviction of the Editor that scientific work in the field of the humanities may generally be made interesting to intelligent citizens through cultivation of clearness in statement and literary style. There are masterpieces even in Economics, for example, which rank as literature, as Adam Smith's *Wealth of Nations* and John Stuart Mill's *Political Economy* bear witness. It is desired to lay emphasis on the fact that while the sciences of Economics, Politics, and Sociology are of concern to the citizen, and make appropriate the title "Citizen's Library," in no case will the interests of science be sacrificed to popularity. The aim will be to bring every volume in the Library up to the present standard of science, and it is hoped that the Library will in more than one instance push forward the boundaries of knowledge.

In conclusion, it only remains to add that the various authors assume responsibility for expres-

sions of opinion, and that publication in the Library does not necessarily mean an endorsement either by publishers or Editor of views found in the several volumes.

THE EDITOR.

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MONOPOLIES AND TRUSTS

CHAPTER I

THE IDEA OF MONOPOLY

THE first step in the removal of the bewildering confusion of thought in the current discussion of monopolies and trusts is taken when monopoly is clearly and accurately defined. The term monopoly, with which we must begin any scientific treatment of our subject, stands in the popular mind not merely for many different ideas, but for a multiplicity of ideas, some of which are antagonistic to each other. Two centuries ago Locke expressed the opinion that disputations were traceable chiefly to failure on the part of disputants to connect with a common term the same idea, so that while they supposed they were talking about one and the same thing, they were really discussing different topics. He gives an instance of a learned debate to which he once listened concerning the question "whether any liquor passed through the filaments of the nerves," and says that after the de-

bate had continued for some time, having "been used to suspect that the greatest part of disputes were more about the significance of words than a real difference in the conception of things," he requested that before they went any further in their arguments they should first define the word "liquor." That ended the debate, for they discovered on examining into the term that to each of them it was a sign of a different idea, that their discussion turned merely on the use of a word, whereas they were in agreement in ideas. Locke also expresses the view "that it is no shame to ask men the meaning of their words," as it is "no discredit not to know what precise idea any sound stands for in another man's mind without he declare it to me by some other way than barely using that sound."

While a precise definition of monopoly cannot be expected to produce harmony of views concerning monopolies and trusts, it paves the way for an intelligent discussion of the scientific and practical problems which they present, and for their settlement. It is also suggested that should no one take part in the discussion of these problems until he could explain to himself and others what he had in mind when he used the word monopoly, the volume of discussion would for some time to come be very sensibly diminished, while, on the other hand, the improved quality of utterances relating thereto might be a sufficient compensation for their diminished magnitude.

But it must be admitted that the confusion of

thought on our subject extends beyond the general public, even to our experts in economics. By them, as by the general public, all sorts of things, differing in essential characteristics, have been frequently lumped together as monopolies. So long as this condition of things lasts, confusion of thought cannot fail to continue. The reasons for the confusion are obvious. The term monopoly, when so broadly used, embraces various classes of business, and the mind transfers peculiarities of one business to another business which lacks some of these peculiarities. When it comes to debates, the confusion is increased if the same word carries several ideas; for not only does the mind of each debater pass from one business to another, but the minds of the two move unequally and irregularly as compared with each other, so that they are frequently talking about different things when they imagine that they are discussing one and the same thing; and the prospect of a really enlightening debate, ending in agreement, is hopeless.

Manifestly, there are some large and vague notions to which the current discussion of monopoly may be traced. In a general way, it will doubtless be admitted by all that there is a distinction between full and free competition and monopoly. An examination of popular speeches and articles on the one hand, and of economic literature on the other, makes it plain that monopoly differs in the mind of nearly if not quite every one from perfect competition. The difference may be slight or it

may be great, but the difference is acknowledged. There is no other term to which, in general usage, monopoly is so antagonistic as it is to competition; and this fact must be our starting-point.

Without attempting at the present time to give a history of the theory of monopoly,* it is instructive to trace in a few typical writers the evolution of the idea of monopoly as something different from free and equal competition, and for present purposes we can do no better than to begin with William Nassau Senior, one of the ablest economists of the English classical school, and one who, unfortunately, has been unduly neglected. While Senior did not follow out and elaborate sufficiently his own thought, what he wrote was suggestive, and in the field of monopoly especially should have been more fruitful in the development of economic theory. But the considerable part of Senior's *Political Economy* which deals with monopoly, while new and valuable at the time, appears to have been that portion of his treatise which above all others has been neglected.

We go at once to the heart of the subject if we examine the following statement, quoted from Senior's *Political Economy*, in which we find a definition of monopoly and of monopolist: "Now it is clear that the production in which no appropriated

* This will be done elsewhere, in the work on *The Distribution of Wealth*, of which the present volume is only a small part.

natural agent has concurred is the only production which has been made under circumstances of perfectly equal competition. And how few are the commodities of which the production has in no stage been assisted by peculiar advantages of soil or situation, or by extraordinary talent of body or mind, or by processes generally unknown or protected by law from imitation? Where the assistance of these agents, to which we have given the general name of natural agents, has been obtained, the result is more valuable than the result of equal labor and abstinence unassisted by similar aids. A commodity thus produced is called the subject of a monopoly; and the person who has appropriated such a natural agent, a monopolist."*

According to Senior, monopoly, then, is anything which confers upon those who enjoy it a special and peculiar economic privilege, whatever this special and peculiar economic privilege may be. Monopoly means to Senior production under circumstances in which competition is not perfectly equal, but, on the contrary, under circumstances in which equal efforts, either subjective or objective, or both together, yield unequal returns to producers.†

* Senior's *Political Economy*, p. 103.

† The term effort, it will be observed, is used in a somewhat extended and technical sense. If two men of equal strength lift unequal weights, their efforts are subjectively unequal. If two men of unequal strength make equal physiological and psychical sacrifices, their efforts are objectively unequal. If two men have unequal capacity, the one hav-

Several causes of monopoly are mentioned, although they seem to be summed up in the term "appropriated natural agent." Mention is made of three causes—namely, peculiar advantages of soil or situation; extraordinary talent of body or mind; secret processes, or processes which the law protects from imitation.

It is clear, then, that to Senior monopoly is not something diametrically opposed to competition, but something which is different from perfectly equal competition. To Senior, monopoly means production so assisted by appropriated natural agents that it gives more valuable results than production not thus assisted. The idea is that which comes out so frequently in Senior—namely, the idea of surplus value. Production under perfectly equal competition is thought of as giving normal returns to labor and capital, and the superior returns of monopoly are, to Senior, surplus value. Rent is thus included under monopoly, as it is an extra return due to a superior situation of land, or to fertility beyond that of land which yields simply

ing talent, the other only normal faculties, equal subjective efforts would yield unequal returns. If two men of equal capacity cultivate ground of unequal fertility, equal objective efforts would produce unequal returns. If our two cultivators of the soil have unequal intellectual capacity and cultivate land of unequal fertility, the inequality in returns would be due both to subjective and objective causes. And in all these cases we would, according to Senior, have to do with monopoly.

normal returns to labor and capital; that is, the land which it is only just worth while to cultivate. But Senior extends the term rent so as to make it cover generally what he regards as monopolistic gains. Whenever a differential advantage giving surplus value exists, we have, according to Senior, monopoly.

The idea of monopoly given by John Stuart Mill is very similar, but in the way in which he puts it he has been followed more generally than Senior. Mill defines and describes monopoly in these words: "A thing which is limited in quantity, even though its possessors do not act in concert, is still a monopolized article. But even when monopolized, a thing which is the gift of nature, and requires no labor or outlay as the condition of its existence, will, if there be competition among the holders of it, command a price only if it exists in less quantity than the demand. If the whole land of a country were required for cultivation, all of it might yield a rent. But in no country of any extent do the wants of the population require that all the land which is capable of cultivation should be cultivated. The food and other agricultural produce which the people need, and which they are willing and able to pay for at a price which remunerates the grower, may always be obtained without cultivating all the land; sometimes without cultivating more than a small part of it; the lands most easily cultivated being preferred in a very early stage of society, the more fertile, or those in the more con-

venient situations, in a more advanced state. There is always, therefore, some land which cannot, in existing circumstances, pay any rent; and no land ever pays rent unless, in point of fertility or situation, it belongs to those superior kinds which exist in less quantity than the demand—which cannot be made to yield all the produce required for the community, unless on terms still less advantageous than the resort to less favored soils." *

Limitation, then, according to Mill, is the essence of monopoly ; " a thing which is limited in quantity, even though its possessors do not act in concert, is still a monopolized article"; and Mill speaks of "competition among the holders of it." He has just spoken about the owners of land "acting together as one man," as something conceivable, though it has never happened. According to Mill, monopoly evidently involves the idea of surplus value—something over and above returns to labor and capital; yet there is, according to him, something distinct and separate in "acting together as one man." He speaks of a possible competition among the holders of a monopolized article, and so, according to Mill, we have the apparent anomaly of a competitive monopoly. But in the very place where he gives this definition he says that landowners do not act together as one man, inasmuch as if they did they would have in their hands a complete control over all the people of the community and

* Mill's *Political Economy*, book ii., chap. xvi., § 2.

over the entire wealth of society. "The exclusive possessor of the land of a country," Mill tells us, "could not well be other than the despot of it. The effect would be much the same if the land belonged to so few people that they could and did act together as one man, and fix the rent by agreement among themselves. This case, however, is nowhere known to exist."* So, according to Mill, there is something over and above mere monopoly and distinct from monopoly—that is, the "acting together as one man."

We next turn to Professor Henry Sidgwick, a writer deservedly distinguished, and frequently keen in analysis, who, however, in his treatment of monopoly, has not avoided considerable confusion of thought. Professor Sidgwick, in one place in his *Principles of Political Economy*, defines monopoly as "the control exercised by an individual seller or combination of sellers over a commodity that no one else can bring to market."† Then he goes on to say, "Now we must use this term more widely," and he begins a process of expansion, taking in things which he sees are beyond his definition. He says: "In the first place, it is convenient to extend it to cases in which a person or union of persons—whom for brevity we will call the monopolist—cannot control more than a portion of the whole

* Mill, *ibid.*

† This is the definition which he gives in book ii., chap. ii., and repeats in chap. x.

supply of the commodity," because such partial control may result in raising prices over and above what they would be were there free competition.

Even where the monopolist has a complete control over the supply at any particular time, Professor Sidgwick says that we must distinguish between different degrees of completeness; but this does not seem quite scientific. He says monopoly may be indestructible, either permanently, or for a determinate period. Thus the owner of a fine painting by one of the old masters, or the owner of land from which valuable mineral waters can be obtained, may be a monopolist.

In the second place, monopoly may be due to "prospective unprofitableness of the outlay of wealth or labor, or both, that would be required to provide the commodity from other sources," either by consumers or as ordinary business ventures.

Then, in the third place, he extends the concept to include buyers. He speaks of buyers' as well as sellers' monopolies, although there is no reason why he should not have included buyers in his definition. After all he does not introduce any essentially new ideas into his concept except to add partial monopolies and buyers' monopolies, and partial monopolies are included in the idea of monopoly.

If we turn to two younger writers who have given much attention to monopoly—namely, Professor Simon N. Patten and Mr. John A. Hobson—we find that they have so enlarged the idea of

monopoly as to include under the head of monopoly all participation in a surplus gain in production or consumption over and above costs. According to Professor Patten, we have this surplus over and above costs in every part of the economic field. Wages participate in the surplus; profits do likewise, and rent also. They all participate in the marginal surplus, and thus as a result we have a society composed of monopolists. Every one has a monopoly; and then we have to make a further distinction between competitive monopolies and exclusive monopolies! This is brought out by Dr. Emory R. Johnson in his article on "The Relation of Taxation to Monopolies," in the *Annals of the American Academy of Political and Social Science* for March, 1894; for in this essay he presents the views shared by himself and Professor Patten.* Dr. Johnson gives this definition of monopoly: "By a monopoly is meant any productive agent possessing monopoly force. A monopoly force is that which gives to a productive agent the disposal of a definite portion of the surplus resulting from production." And as all agents of production, accord-

* Professor Patten's idea of monopoly pervades nearly, if not quite, all his economic writings. The following special references, however, may prove helpful to those who wish to examine further his concept of monopoly: "Cost and Utility," in the *Annals of the American Academy* for January, 1893, p. 35; his monographs, *Dynamic Economics*, pp. 63, 102, 107, 114; *Stability of Prices*, pp. 39-40, 57; *Principles of Rational Taxation*, pp. 7, 14.

ing to Professor Patten, do have the disposal of a definite portion of the surplus, we have the apparently curious anomaly of a monopoly force which includes the entire field of production. We could scarcely have a more violent departure from the ordinary usages of language; and yet, in the distinction they make between competitive monopolies and non-competitive monopolies, they have good company in Mill, although he did not elaborate the idea as they have done.

Mr. Hobson has until recently had just as wide an idea of monopoly,* although he has considered the subject more objectively than Professor Patten. In every part of the industrial field, and in nearly every bargain that is made between men — and distribution is effected by bargaining — we find a surplus, and to that surplus, until recently, Mr. Hobson has given the name of monopoly gain. Now, however, he has yielded to criticism, and to this gain which is found in the ordinary bargain he applies the term "forced gain"; and that is the term employed in his book, *The Economics of Distribution.* He has given up his former all-inclusive idea of monopoly.

* See, for example, Mr. Hobson's article, "The Law of the Three Rents," in the *Quarterly Journal of Economics* for April, 1891, pp. 267–8, and 273–4.

We thus reach the termination of one line of evolution. We begin with the large and somewhat vague idea of any superiority over and above that enjoyed by those who simply have the opportunity to compete freely with anybody, this superiority yielding surplus value; and we end with the doctrine that all who participate in production enjoy a surplus over and above what are to them costs—that is, over and above the real pains and other sacrifices they undergo in production, and thus we have our entire industrial society composed of monopolists.

The conclusion suggests itself that a satisfactory discussion of monopoly must be based on a more restricted idea of monopoly. It is necessary to return to the more ordinary usage of language. What monopoly really signifies when we think of it as the opposite of competition, is *unity in management of some kind of business* in some essential particular.* It may be in production, it may be in sales, or it may be in purchases, or it may be in any two or all three of these particulars. It is the writer's belief that this is the only satisfactory use of the term monopoly, for it alone gives us a clear, scientific concept which is workable. We may, then, formulate this definition of monopoly:

* Business is used here in the widest sense, embracing not only material production, but services of every sort.

Monopoly means that substantial unity of action on the part of one or more persons engaged in some kind of business which gives exclusive control, more particularly, although not solely, with respect to price.

A few points in our definition require comment. Price is essential, and must be regarded as the fundamental test of monopoly, even if it is obvious that price-formation and price-control do not exhaust monopoly, since its import reaches beyond price. The other things than price-control which monopoly carries with it flow from such control and are not secure without it. A certain unity of action may be obtained without the establishment of monopoly, since it does not give rise to monopoly until the power to control price is secured. Again, it may seem needless to put in "on the part of one or more persons," because it would appear to be a matter of course, and yet it is required to complete our concept. We may have a monopoly of one person, and one person may act in such a manner as to receive the advantages of unified control—and if a person is mentally competent he will so act; or we may have a monopoly controlled by a combination of persons.

The essence of monopoly, then, is substantial and controlling unity of action. It is not said that unity of action need be absolute, but there must be substantial unity of action. Those in control of a monopolized business act as one man, as one person, and they gain the advantages, whatever they may be, great or small, of unified action. Professor

Sidgwick has spoken about the possibility of a monopoly which would not prevent price from falling below cost. That is quite possible and quite compatible with the definition given. The advantage of unified action may be that the loss is diminished. There would then be a negative advantage. Sometimes a monopoly will give perhaps simply normal returns; sometimes there is loss, as in the case of an unprofitable copyrighted book; sometimes it might happen that the monopoly price would be exactly the same as the competitive price; sometimes it may go, and generally will go, above the competitive price,* although there might be other gains than that resulting from higher price. But whatever the gains resulting from unified action, they belong to monopoly. Monopoly signifies this unity of action, this unity of control in business. If eighty per cent. of a business gives substantial and controlling unity in the business—that is, if those who own eighty per cent. of the business are able to control it and make everything act in accordance with their policy, then we have monopoly.†

* This point is discussed in chap. vi., pp. 221–225.

† According to Mr. Henry O. Havemeyer, President of the American Sugar Refining Company, a man producing eighty per cent. of an article has a monopoly. The following are extracts from his testimony given before the "Joint Committee of the Senate and Assembly of New York State" in 1897 (the so-called Lexow Trust Committee), and are instructive in this connection:

"It goes without saying that a man who produces 80 per cent.

The precise definition given here of monopoly appears in the main to be in accordance with the best English usage, and also to be in harmony with the meaning given to the corresponding word in other modern languages by those who use these languages with discrimination.

The etymological history of a word is not decisive, but it is something which throws at least a side-light on the meaning of terms, and should not be neglected. The word monopoly is traced through the Greek nouns *μονοπώλιον* and *μονοπωλία,* to the two Greek words *μόνος* (alone) and *πωλεῖν* (to sell).

of an article can control the price by not producing; the price must advance if he does not produce; and it must decline if he does produce, if he produces more than the market will take."

And a little further on he again states this in reply to a question:

"It goes without saying that a corporation that controls 80 per cent. of the product does control the market price up to the importing point, if he chooses to exercise that power, for it goes without saying that that same power can be exercised to diminish the price; when you ask whether it was the idea in mind on the formation of the company, I would say that I do not think it was; that testimony wants to be read in connection with what went before it and with the objects of that investigation."

Then follows this question:

"Then, according to your present version of it, in any event, whether it was your object or not, that object was reached by reason of your controlling 80 per cent. of the product; you do in fact control the product and price in the United States?"

To which the answer was given:

"We undoubtedly do."

Μονοπωλία means, first, simply exclusive sale, but it is natural to extend it so as to signify the exclusive right or power of sale, and the latter meaning is the one given in the dictionaries for μονοπώλιον. The meaning of the Greek words is something which is reflected in the corresponding modern words, and those who employ language with fine discrimination have, in this case at any rate, not forgotten the Greek source of the terms monopoly and monopolist.

The makers of dictionaries of the English language should be heard before a final decision is reached concerning the meaning of terms, especially those employed in familiar discourse, but it is sufficient for present purposes to cite Webster's International Dictionary and the Century Dictionary, as these two give all the essential points.

Webster's definition is as follows: "The exclusive power, right, or privilege of selling a commodity; the exclusive power, right, or privilege of dealing in some article or of trading in some market; sole command of the traffic in anything, however obtained; as the proprietor of a patented article is given a monopoly of its sale for a limited time; chartered trading companies have sometimes had a monopoly of trade with remote regions; a combination of traders may get a monopoly of a particular product." After saying this, Webster gives a quotation from Macaulay: "Raleigh held a monopoly of cards; Essex of sweet wines." Webster gives two other definitions: "Exclusive pos-

session, as a monopoly of land"; and "The commodity or other material thing to which the monopoly relates; tobacco is a monopoly in France."

In the Century Dictionary, we find the same idea —namely, that monopoly means exclusive control: "An exclusive privilege to carry on a traffic." It is the same idea which is found in Blackstone also, as is seen in the quotation given from him in the Century Dictionary. It is as follows: "Monopolies are much the same offences in other branches of trade that engrossing is in provisions, being a license or privilege allowed by the king for the sole buying or selling, making, working, or using of anything whatsoever; whereby the subject in general is restrained from that liberty of manufacturing or trading which he had before."* Here we find monopoly applied to manufacturing and trading, and the privilege is granted by the king. That was the old idea of monopoly, as we shall see. The older monopolies, those which are mentioned in Bills of Rights and elsewhere in the constitutions of the American states, are these exclusive grants. A monopoly in these instruments signifies what is given in the Century Dictionary under "2" as belonging to English constitutional law and hence sometimes to American law—namely, "An exclusive privilege when granted by the Crown or the State to an individual, association, or corporation for the sake of the pecuniary advantage

* Blackstone's *Commentaries*, chap. iv., p. 159.

of its exclusiveness." Whatever advantage comes from such exclusiveness belongs to monopoly. In the older English law a distinction was made between engrossing and monopolies. Engrossing was not an exclusive privilege granted by the state, but an exclusive control secured by buying up and cornering the article. We do not now make this distinction.*

The Century Dictionary seems to confine monopoly to something objectionable. It speaks of exclusive privileges granted for regulation as not

* Regrating and forestalling were in English law special kinds of monopolistic enterprises which grew up out of the conditions of early English life. The following definitions are taken from Beach's *Monopolies and Industrial Trusts*, pp. 5 and 6:

"'Regrating. In old English law, the offence of buying or getting into one's hands at a fair or market any provisions, corn, or other dead victual, with the intention of selling the same again in the same fair or market, or in some other within four miles thereof, at a higher price. The offender was termed a regrater.'—Black, Law Dictionary.

"'Regrating. In criminal law every practice or device, by act, conspiracy, words, or news, to enhance the price of victual or other merchandise, is so denominated.'

"'Forestalling the market. The act of buying or contracting for any merchandise or provision on its way to the market with the intention of selling it again at a higher price; or the dissuading persons from bringing their goods or provisions there; or persuading them to enhance the price when there.—4 Blackstone's *Commentaries*, 158. This was formerly an indictable offence, but is now abolished by St. 7 and 8 Vict., chap. xxiv.'—Black, Law Dictionary. See also Bouvier, title, *Forestalling the Market*."

These distinctions have at present chiefly an historical and psychological interest.

deemed monopolies—as the privilege of engaging in banking, carrying on a liquor business, etc. But then the Century Dictionary goes on to say that such a privilege would be a monopoly if granted to a limited number, to one or to a few. This distinction has meaning only as it points to the power of one or a few to exercise unified control over a business. Patents and copyrights are not called monopolies by the Century Dictionary.

The third definition given by this dictionary is for the word as used in political economy and in a general sense in law: "Such an exclusive privilege to carry on a traffic or deal in or control a given class of articles as will enable the holder to raise prices materially above what they would be if the traffic or dealing were free to citizens generally." As an illustration, mention is made of the exclusive control of the only land from which a certain product can be obtained, such as rare mineral waters, earths, or ores; and it is stated that businesses over which such exclusive control is exercised are sometimes spoken of as natural monopolies in contrast to artificial monopolies.

Continuing the definitions of the Century Dictionary, we find in the fourth place that monopoly means "that which is the subject of monopoly, as opium in Bengal." Then, fifth, "the possession or assumption of anything to the exclusion of other possessors: thus, a man is popularly said to have a monopoly of any business of which he has acquired

complete control." Sixth, "a company or corporation which enjoys a monopoly."

Furthermore, attention is called by the Century Dictionary to a distinction which is sometimes found in law between monopolies and virtual monopolies. Virtual monopoly is stated to be a term found in constitutional law and in the history of legislation, the appropriate application of which is in dispute. It is "used to characterize a business which, though not declared by law to be a monopoly or exclusive franchise protected as such, as by a patent or exclusive charter, is yet so related to the great channels and currents of commerce that the allowing of it to enjoy the same protection as other private property and business secures to it indirectly exclusive advantages substantially equivalent to a legal monopoly." The great grain elevators are given as an illustration.

It is seen that there runs through all these meanings the notion of exclusiveness or unity as the dominating thought, as the essential thing for which the mind is more or less successfully struggling and the thought about which other things are grouped. Exclusive unity in business is what monopoly signifies. The business is unified and others are kept out of it, except those who act with the combination, if it is a combination. If it is only one person, then necessarily there is a monopoly.

Strictly speaking, monopoly originally means the exclusive right to sell and not to buy or produce. The right of sale is emphasized by all of these def-

initions. The Germans have a word, "Regal," which has sometimes been employed to indicate the exclusive right of manufacturing as opposed to the exclusive right of selling, and for this we could use the Latin word "regale." Such a distinction is, however, not usually made now, in either the German or the English language, but the word "monopoly" ("Monopol" in German) is employed to cover both selling and manufacturing. Blackstone, in the quotation given, uses the term monopoly with reference to manufacturing.

As the economists, to whom it peculiarly belongs, have so generally failed to give any clear and concise notion of monopoly, it need not excite surprise that the law has been confused and perplexed when it has had to deal with problems of monopoly; so that judicial utterances and decisions have been unsatisfactory to all interests involved, and frequently contradictory one with another in their interpretations. Two points in the legal treatment of monopoly, however, deserve consideration. One is the entirely sound tendency to emphasize unified control of business as an essential characteristic of monopoly. Lord Coke, in the seventeenth century, laid emphasis upon the exclusive nature of monopoly, when he said that it consisted of power granted "to any person or persons, bodies politic or corporate, for the *sole* buying, selling, making, working, or using of anything, whereby any person or persons, bodies politic or corporate, are sought to be restrained of any free-

dom or liberty that they had before, or hindered in their lawful trade."* Blackstone, in his *Commentaries on the Laws of England*, gave almost precisely the same definition in the following century. Recent American decisions lay emphasis on exclusiveness as a test of monopoly. The following extract brings out with exceptional clearness this peculiarity of monopoly: "A monopoly exists where all or so nearly all of an article of trade or commerce within a community or district is brought within the hands of one man or one set of men, as to practically bring the handling or production of the commodity or thing within such *single control*, to the exclusion of competition or free traffic therein. Anything less than this is not a monopoly."† Mr. F. H. Cooke, in his *Trade and Labor Combinations*, similarly defines monopoly as the "exclusive right of selling."‡

The second legal point in the definition of monopoly is that which makes monopoly proceed from an express grant of public authority. Lord Coke says: "A monopoly is an institution or allowance by the king, by his grant, commission, or other-

* Coke, 3 Institutes, 181. Quoted by C. F. Beach, Sr., in his *Monopolies and Industrial Trusts*, § 5.

† See Herriman *vs.* Menzies, 115 Cal., 16, 20; Supreme Court, 46 Pac. Rep., 730 (1896). Quoted by F. H. Cooke in his *Trade and Labor Combinations*, part ii., § 18, foot-note 1, p. 95. For pertinent utterances in other decisions, see the numerous quotations in the foot-notes accompanying part ii. of that work.

‡ Cooke, *ibid.*

wise"; and Blackstone uses similar language in defining monopoly "as a license or privilege allowed by the king."

Historically, this source of monopoly power is of paramount importance. From early times, English sovereigns granted monopolies either for public or private reasons, and they became a grievous burden. Queen Elizabeth in particular sinned in this respect, regarding the right to grant monopolies as "one of the fairest flowers" in her prerogative, and it was not long before the citizen found himself restrained and shut in on every side by a privileged class of monopolists. Hume, in his *History of England*, describes forcefully the extent to which monopolies have existed in England, and in vivid language he portrays evils which proceeded from them. The following quotation is of such importance in this connection as to justify its length:

"The active reign of Elizabeth had enabled many persons to distinguish themselves in civil and military employments; and the queen, who was not able from her revenue to give them any rewards proportioned to their services, had made use of an expedient which had been employed by her predecessors, but which had never been carried to such an extreme as under her administration. She granted her servants and courtiers patents for monopolies; and these patents they sold to others, who were thereby enabled to raise commodities to what price they pleased, and who put invincible restraints upon all commerce, industry, and emulation in

the arts. It is astonishing to consider the number and importance of those commodities which were thus assigned over to patentees. Currants, salt, iron, powder, cards, calf-skins, fells, pouldavies, ox-shin bones, train-oil, lists of cloth, potashes, aniseseeds, vinegar, sea-coals, steel, aqua-vitæ, brushes, pots, bottles, saltpetre, lead, accidences, oil, calamine-stone, oil of blubber, glasses, paper, starch, tin, sulphur, new drapery, dried pilchards, transportation of iron ordnance, of beer, of horn, of leather, importation of Spanish wool, of Irish yarn: these are but a part of the commodities which had been appropriated to monopolists. When this list was read in the House, a member cried, 'Is not bread in the number?' 'Bread,' said every one with astonishment. 'Yes, I assure you,' replied he, 'if affairs go on at this rate, we shall have bread reduced to a monopoly before next Parliament.' These monopolists were so exorbitant in their demands that in some places they raised the price of salt from sixteen pence a bushel to fourteen or fifteen shillings. Such high profits naturally begat intruders upon their commerce; and, in order to secure themselves against encroachments, the patentees were armed with high and arbitrary powers from the council, by which they were enabled to oppress the people at pleasure, and to exact money from such as they thought proper to accuse of interfering with their patent. The patentees of saltpetre, having the power of entering into every house, and of committing what havoc they pleased in stables, cellars, or wherever they suspected saltpetre might be gathered, commonly extorted money from those who desired to free themselves from this damage or trouble. And while all domestic intercourse was thus restrained, lest any scope should remain for indus-

try, almost every species of foreign commerce was confined to exclusive companies who bought and sold at any price that they themselves thought proper to offer or exact.

"These grievances, the most intolerable for the present, and the most pernicious in their consequences that ever were known in any age or under any government, had been mentioned in the last Parliament, and a petition had even been presented to the queen, complaining of the patents; but she still persisted in defending her monopolists against her people. A bill was now introduced into the Lower House, abolishing all these monopolies; and, as the former application had been unsuccessful, a law was insisted on as the only certain expedient for correcting these abuses. The courtiers, on the other hand, maintained that this matter regarded the prerogative, and that the Commons could never hope for success, if they did not make application, in the most humble and respectful manner, to the queen's goodness and beneficence. The topics which were advanced in the House, and which came equally from the courtiers and the country gentlemen, and were admitted by both, will appear the most extraordinary to such as are prepossessed with an idea of the privileges enjoyed by the people during that age, and of the liberty possessed under the administration of Elizabeth. It was asserted that the queen inherited both an enlarging and a restraining power; by her prerogative she might set at liberty what was restrained by statute or otherwise, and by her prerogative she might restrain what was otherwise at liberty: that the royal prerogative was not to be canvassed, nor disputed, nor examined; and did not even admit of any limitation: that absolute princes, such

as the sovereigns of England, were a species of divinity: that it was in vain to attempt tying the queen's hands by laws or statute; since, by means of her dispensing power, she could loosen herself at pleasure: and that even if a clause should be annexed to a statute, excluding her dispensing power, she could first dispense with that clause and then with the statute. After all this discourse, more worthy of a Turkish divan than of an English House of Commons, according to our present idea of this assembly, the queen, who perceived how odious monopolies had become and what heats were likely to arise, sent for the Speaker, and desired him to acquaint the House that she would immediately cancel the most grievous and oppressive of these patents.

"The House was struck with astonishment and admiration and gratitude at this extraordinary instance of the queen's goodness and condescension. A member said, with tears in his eyes, that if a sentence of everlasting happiness had been pronounced in his favor he could not have felt more joy than that with which he was at present overwhelmed. Another observed that this message from the sacred person of the queen was a kind of gospel or glad tidings, and ought to be received as such, and be written in the tablets of their hearts." *

Our forefathers were so deeply impressed with

* Hume's *History of England*, vol. iv., chap. xliv. The great "case of monopolies" in 1602 conveyed a somewhat different impression concerning the subserviency of the English citizen, for it was at that time and place distinctly asserted that "Commonweals are not made for Kings, but Kings for Commonweals." See William Noy, *Reports and Cases*, 2d ed., London, 1669, p. 178; cf. also p. 174.

the evils which they had suffered at the hands of the monopolists in old England that in the Bills of Rights and elsewhere in the early constitutions of our commonwealths they frequently inserted severe denunciations of monopolies, and prohibited them unqualifiedly; and these declarations and prohibitions still last in several states. Two illustrations will suffice. We read the following utterance in Article 39 of the Declaration of Rights which forms part of the constitution of Maryland: "Monopolies are odious, contrary to the spirit of a free government and the principles of commerce, and ought not to be suffered." And the people of Texas still cherish Section 26 of Article I. of their constitution, which among other things declares that "monopolies are contrary to the genius of a free government, and shall never be allowed."

While the spirit of monopoly is as old as man, there was until this century comparatively little opportunity for monopoly on any large scale save as it proceeded from express grants of public authority. These grants were sometimes made for public purposes, as Hume intimates was frequently the case in the reign of Queen Elizabeth, and sometimes they proceeded from downright abuse of monarchical power, and were granted to favorites of royalty. We cannot now stop to discuss their merits and demerits, but call attention to the fact that they became odious, and were prohibited both in England and in this country, exception being made of patents, copyrights, and trade-marks. At

the present time, however, monopolies proceed from the nature of industrial society, and are of far greater significance in our economic and political life than ever before. The really serious monopolies of our day are far more subtle, and have for the most part grown up outside of the law, and even in spite of the law. It implies a failure to recognize the most obvious social facts to limit the term monopoly to exclusive privileges expressly granted by the legislative branch of government. It is one thing to open one's eyes and see the clear facts of industrial society; it is another thing to seek for their underlying causes. We may well classify monopolies in accordance with their source, but we may not without serious error refuse the term monopoly to all classes of monopolies save those granted by public authority. The reluctance of courts to extend the term monopoly is simply another illustration of the well-known but unfortunate fact, so often commented on, that our law has not kept pace in its development with our industrial evolution. Fortunately, however, our legal authorities begin to perceive the necessity of an extension of the term monopoly. Thus Mr. F. H. Cooke, in his already cited *Trade and Labor Combinations*, uses these words: "Within a comparatively recent period the conception of a monopoly has been extended from a right created by government, to a condition produced by the acts of mere individuals; thus, where within a given area all sales of a given article are made by a single

individual or set of individuals."* And in a foot-note he adds the following important observation, including a quotation from a decision of a Federal court: "So revolutionary has been the recent extension of the meaning attached to the word 'monopoly' that there is even a tendency to wholly exclude what was originally covered by the term. With reference to the use of the term 'monopolize' in the Federal and Louisiana anti-trust acts, it is said in American Biscuit & Manufacturing Company *vs.* Klotz, 44 Fed. Rep., 721 (Circuit Court, Louisiana, 1891): 'In construing the Federal and State statutes *we exclude* from consideration all monopolies which exist by legislative grant; for we think the word "monopolize" cannot be intended to be used with reference to the acquisition of exclusive rights under government concession, but that the law-maker has used the word to mean "to aggregate" or "concentrate" in the hands of few, practically, and as a matter of fact, and according to the known results of human action, to the exclusion of others.'"

It is, however, going to an opposite extreme to refuse the term monopolies to "the acquisition of exclusive rights under government concession." A particular statute may have required this limitation, but in the nature of things there is no propriety in limiting thus arbitrarily the meaning of words. It is confounding two orders of inquiry to

* Cooke, *l. c.*, part ii., § 18, pp. 94, 95.

say that a word stands for such and such ideas, and then to refuse the word-sign to those ideas when they operate in a given manner—that is to say, beneficially or injuriously. We must let the term stand for a clear and definite idea, and when we have decided what the nature of the idea is, we may then endeavor to ascertain under what circumstances the thing described operates advantageously, and under what circumstances, disadvantageously. We have no right to assume without inquiry that monopolies are either good or bad. It is precisely this sort of assumption that is responsible for the unsatisfactory progress which we have made in the discussion of monopolies, when we consider this discussion either in its immediately practical or its purely scientific aspects. There is thus no propriety in saying that patents or copyrights are not monopolies, for their essential idea is precisely monopoly; and, similarly, there is no propriety in using the term virtual monopolies for monopolies not based on government concession. Likewise, the limitation of monopoly, as by Coke and Blackstone, to old pursuits or businesses, making monopoly include only a grant "whereby the subject in general is restrained from the liberty of manufacturing or trading which he had before," is purely arbitrary and unscientific.

We must anticipate our classification of monopolies sufficiently to state that we have partial monopolies as well as complete monopolies, as this statement adds to the fulness of our idea of the term.

We have a partial monopoly where there is a unified control over a considerable portion of the industrial field, but not over a sufficient portion to give complete domination of the whole field. It can easily be understood that if ninety per cent. of a given business, but no smaller percentage, would afford control over the whole business, eighty per cent., while it would not be sufficient for domination, might carry with it an advantage to the person or persons enjoying unified control over the eighty per cent., yielding an excess above competitive returns which we may properly designate as one sort of surplus value. Businesses must often be in this position, and a monopoly may be obliged to go through several stages of partial monopoly before it reaches a position where it can exercise unified control over the entire business.

But we must distinguish sharply between a condition of monopoly and other conditions, if we are to think clearly and accurately. One thing which does not yield monopoly is mere limitation of supply, and it is strange that even an economist of the ability of John Stuart Mill should have found the essential feature of monopoly in this limitation; for this at once makes monopoly cover the entire field of economic activity, inasmuch as economic activity is for the acquisition of valuable things, and things lack value whenever their supply is adequate for the satisfaction of all wants. It is only things limited in proportion to human desires that have value.

Nor may we say that a valuable thing is monopolized because its supply is limited and also graded in quality. Land exists in quantities to which physical nature has assigned limits, and the supply of land exists in grades varying in fertility and desirability of situation, and as a consequence of this gradation we have the rent of land. Land is not, however, a monopoly, and it is misleading to speak of it as a natural monopoly. Nowhere do we find monopoly either in the ownership or in the cultivation of land, but everywhere competition—competition among unequals, to be sure, but still competition. As we have already seen in a quotation from John Stuart Mill, a unified control over land would carry with it the entire subjugation of all non-landowning classes.*

Land-rent is a differential gain, a gain due to the superiority of the land owned by rent-receivers over that cultivated by those who are making use of land which affords nothing beyond returns to labor

* The Bible describes the outcome of a monopoly in food supply in the account given of the operations of Pharaoh under the guidance of Joseph. All the money in the land was first given for food, "and Joseph brought the money into Pharaoh's house." The people of Egypt next exchanged all their herds of cattle for food, and then they said to Joseph: "Buy us and our land for bread, and we and our land will be servants unto Pharaoh: and give us seed, that we may live, and not die, that the land be not desolate." Then it came to pass that the "land became Pharaoh's," and thereafter he had a fifth part of its produce.—Genesis, chap. xlvii.

and to capital. Now we must distinguish between the broad concept of differential gains enjoyed by those in competitive pursuits, and the monopolistic gains which are based on the absence of competition.

Just as sharply must we distinguish between competitive businesses of large magnitude and monopolies. Department-stores in no city in the world enjoy monopolies, but are subjected to the steady, permanent pressure of competition. There are those who call every business operating on a vast scale monopoly, and would put in the same economic category a gas-works without a competitor and a huge retail dry-goods establishment with rivals at every hand, ready to seize every opportunity for an advantage over it and certain to ruin it if its managers relax their intense activity and watchfulness.* This implies a confusion of thought which must be removed before popular discussions of monopolies can become fruitful. It may or may not be true that a mammoth department-store is a serious evil; with that we are not now concerned; we wish to make clear that it is not a monopoly, precisely because competition and monopoly are opposites.

* What could appear to be more solid than the immense business which Mr. A. T. Stewart a quarter of a century ago had built up in New York city! How quickly after his death did it melt away in less competent hands! And how different from a gas monopoly, due not to individual capacity, but to the nature of the business!

Furthermore, we must sharply distinguish between mere combination and monopoly, for combination of every sort is called monopoly in popular parlance, however severe the competition may be under which the combination works. For example, the Grape-growers' Union in Chautauqua county, in western New York, has been called a monopoly, although during the period of its existence, the competition among grape-growers has been so severe that the price has been below cost the greater part of the time.

Again, it is essential to emphasize the fact that we may have substitutes for monopolized services and commodities. Perhaps the only case in which substitution would be impossible would be that of the entire food supply. If the land-owning or cultivating class could combine, they could monopolize the entire food supply; and for this there would be no substitute. When there is a substitute for an article, the article may be monopolized just as well, and that does not interfere with the concept. If we have a complete monopoly of the street-car traffic, it does not follow that there may not be substitutes for the use of the street-cars. You may walk, if you please; you may ride in a cab, if you please. But it is contrary to the idea of monopoly to say that an article is not monopolized because such and such substitutes are used for it. The use of substitutes is consistent with monopoly, and we nearly always have them. For almost anything we can think of, there is some sort of a substitute more

or less perfect, and the use of substitutes furnishes one of the limits to the power of the monopolist. In the consideration of monopoly we have to ask, what are the substitutes, and how effective are they?

Finally, we must consider briefly the use of the word monopoly in economics to mean unified control. First of all, in this connection, a personal word. The present writer uses the word monopoly for unified control in his *Problems of To-day*, published in 1888, but in that work he follows Mill in the mistake of calling land a natural monopoly. This, however, is out of harmony with the rest of the discussion in the *Problems of To-day;* for it is there said, "there is one natural monopoly which stands apart by itself with peculiar qualities. It is land." Later in the same book (p. 124), it is said, "For one man to attempt to get a monopoly in farming is an absurdity." Steady, permanent pressure of competition is made decisive.

Then, in the *Introduction to Political Economy* (p. 161), written in the following year (1889), land is ruled out in so many words. It is said of land, "it is a limited factor, but in the ownership or management of land there is no inevitable tendency to monopoly." In the *Outlines of Economics*, published in 1893, this definition of monopoly is framed: "Monopoly is nothing else than a business not limited by competition. A monopoly results whenever one competitor enjoys certain

advantages which the other competitors cannot obtain, and the process of competition goes on far enough to drive them from the field." That is on page 59, and on page 295 the same definition is repeated. Again, land is expressly ruled out, and the idea of business in one hand is made decisive.

Then the writer's ideas of monopoly are still further formulated in the magazine *Progress*, in a series of articles written in 1898–99, but not so fully as in his lectures on the "Distribution of Wealth," which have been delivered in the University of Wisconsin during the past seven years.

This same idea of monopoly is given by Walras in his *Pure Economics*, second edition, 1889.* Walras dwells upon the absurdity of that enlarged idea of monopoly in earlier economic writings, which makes it cover the entire industrial field. He says that Mill and others claimed that it means scarcity, whereas, if it did, then, of course, we could not have value without monopoly, as value implies scarcity.

Professor Lexis, who wrote the article on monopoly in the *Handwörterbuch der Staatswissenschaften*,† gives a characteristic of monopoly which harmonizes with the author's concept, although he does not carry it out consistently. He says it

*The writer did not read Walras, however, until May, 1899, when this work had already been fully developed in its essential thoughts.

† Edited by Conrad, vol. iv., 1892.

"means unified tactics with respect to price." But it means other things as well.*

* The purpose of the latter part of this discussion of the use of the word monopoly by economists is to bring out certain facts of scientific interest and to fix certain dates.

It may be well to remind the reader again that differences in terminology do not of necessity imply differences in essential ideas. While the author regards the extension of the term monopoly, to which attention has been called, as unfortunate both in its theoretical and practical consequences, he is not by any means opposing all that has been said about monopoly by the economists who have employed monopoly to cover so many things; but, on the contrary, is carrying forward and developing further their excellent work.

CHAPTER II

THE CLASSIFICATION AND CAUSES OF MONOPOLIES

As our first step in the discussion of monopolies is the definition of monopoly, so the second step is the classification of monopolies, with an examination of their causes. What we need here as elsewhere in the scientific and popular discussions of economic problems is analysis, for the tendency in discussions of both kinds is to generalize too hastily. The inclination is to say that monopolies are bad, or perhaps sometimes a desire may be discovered to say that on the whole they are good. Analysis, however, may reveal such differences in monopolies that we shall be able to say little if anything applicable to all monopolistic businesses save the simple statement that over them unified control is exercised—in other words, that they are monopolies!

One further preliminary observation suggests itself—namely, that classification of monopolies is not only based upon their causes, but reveals their causes; consequently they may best be discussed together.

The first great separation of monopolies is into two main classes, and it has regard to ownership and the direct and immediate beneficiary. The two classes are:

A. Public Monopolies.

B. Private Monopolies.*

Public Monopolies are those businesses which are owned and operated by some political unit, and this political unit is the direct and immediate beneficiary; in other words, to this political unit in the first place flow all the benefits of monopoly. *A Private Monopoly, on the other hand, is a monopoly owned and operated by a private person;* it may be a natural person—that is, a human being—or some association of natural persons, as a partnership, or it may be the artificial person called a private corporation. In this case the first and immediate beneficiary of the benefits of the property and business is the private person, although large benefits may flow to the general public.

We may also have *mixed monopolies*, as where a political unit owns monopolistic property which is managed by a private person, or where a private person owns monopolistic property, which is managed by a public agency. The former case is illustrated by those railways owned by our common-

* In our classifications the co-ordinate classes will be indicated by the same letters or marks. The capital letters will indicate the chief classes; the Roman numerals, classes subordinate to them; and the Arabic, classes subordinate to those indicated by Roman numerals, and so on.

wealths or cities* and operated by private corporations; the latter case finds illustration in privately owned railways operated by the State.†

There are private corporations which have what is called a quasi-public character, because the businesses owned and managed by them are of vital importance to society at large, and because society, through government, reserves special rights of regulation over their business operations. When, however, these businesses are monopolies, they fall within the class of private monopolies. They are privately owned, and the benefits of private property flow directly and immediately into private pockets.‡ It is believed that this great fundamental distinction between public and private monopolies is essential both to clear thinking and to sound public policy. Whoever undertakes to tell us what is true about monopolies, and what is wise for society to do with respect to monopolies, must make it plain whether he is talking about public monopolies or whether he is discussing private monopolies.

* The North Carolina railroad, owned by North Carolina, and leased to the Southern Railway Company, and the Cincinnati Southern railroad, built and owned by Cincinnati, and leased to the Cincinnati, New Orleans, and Texas Pacific Railway Company, afford illustrations.

† This formerly happened frequently in Prussia.

‡ Our courts protect private property in railways, gasworks, etc., even while recognizing that they have public functions.

The second classification of monopolies is made with reference to the source of monopoly-power, and is based upon a different principle of classification, so that this second classification will cut across the first. We have again two main classes, and these are:

A. Social Monopolies.*

B. Natural Monopolies.

A Social Monopoly is a monopoly which arises out of social arrangements and is an expression of the will of society as a whole, through government, or of a

* Social monopolies are often called artificial monopolies, and in the author's previous works they are so called; but the term social monopolies appears to be a better term than artificial monopolies, because the word artificial carries with it a certain criticism, which anticipates the argument concerning their effects. It is preferable to discuss them hereafter and find out whether they are objectionable or not. In our classification, however, it is better not to imply a reproach unless it is necessary; but in some cases the term itself of necessity might convey a reproach.

The term social monopolies, like all terms in economics, is more or less arbitrary, but it seems to point to the essence of these monopolies and to do as little violence to the ordinary usages of language as any term which could be employed.

The term natural monopolies is a convenient designation, and has become so widely accepted that it could not easily be changed.

section of society strong enough to impose its will on society. A Natural Monopoly, on the other hand, is a monopoly which rests back on natural arrangements as distinguished from social arrangements.

The term natural here is used in its well-understood and customary sense, to indicate something external to man's mind. A natural monopoly is one which, so far from giving expression to the will of society, grows up apart from man's will and desire, as expressed socially, and frequently in direct opposition to his will and desire thus expressed.

Social monopolies and natural monopolies may be divided into classes and sub-classes, as follows:

A. SOCIAL MONOPOLIES.

I. General Welfare Monopolies.

1. Patents.
2. Copyrights.
3. Public Consumption Monopolies.
4. Trade-marks.
5. Fiscal Monopolies.

II. Special Privilege Monopolies.

1. Those based on Public Favoritism.
2. Those based on Private Favoritism.

B. NATURAL MONOPOLIES.

I. Those arising from a Limited Supply of Raw Material.

II. Those arising from Properties Inherent in the Business.

III. Those arising from Secrecy.

It is necessary to explain further the various monopolies which appear in this second classification, which is not only the most elaborate, but, for scientific and practical purposes, the principal classification, when once we have thoroughly grasped the fundamental distinction between public monopolies and private monopolies.

We have first, then, General Welfare Monopolies, those monopolies which society, through government, has established to promote the general welfare. Most of these are simple enough. We have patents. In order to encourage invention, the government grants an exclusive right to the use of some idea for a limited time. The evil of monopoly is generally acknowledged by the advocates of the patent system, but it is said that the benefits derived from invention are a sufficient counterpoise or offset; that society does better to put up with the evils of monopoly of the idea for a time, with the encouragement to invention which it gives, than it would to refuse thus to encourage invention. The monopoly is a limited one in time, and very properly so, because the idea itself is largely a social product. We can trace that out in every great invention. That is the reason why the same invention is often made in two or three countries at the same time. A given stage in the industrial arts suggests certain improvements. Men are working in different places to effect these improvements, and two or three at the same time frequently hit upon the same improvement. If these two or three

had not made the invention, it would have been made almost invariably, but a little later perhaps, by others. The race is stimulated, it is maintained, and, on the basis of experience, we may believe truly, by the reward. It does not seem quite fair, in one way. If you and I are racing, and one gets in five feet ahead of the other, he receives all the reward. It may be that one gets his invention in just a few days ahead of the other, and has all the reward, but nothing better has yet been devised than a well-guarded patent system. The only thing is to make sure that it protects both public and private interests. But the remedies for abuses of the patent system will be discussed briefly when we come to consider remedies for the evils of monopolies.

The case of copyrights is somewhat similar. We need not dwell upon them more than to say that they interfere less with industrial liberty than do patents. No two persons can produce quite the same book; whereas two persons can make precisely the same invention, as is illustrated by the telephone. The Germans do not acknowledge the claim of Bell or of Morse to the telephone or the telegraph, as they have their own men to whom they attribute these inventions; and without any desire to detract from the services of these distinguished Americans, it must be frankly admitted that it is difficult to decide to whom among rival aspirants for the honor of priority, the palm is to be awarded, because the inventions were made at about the same time in the

United States and Germany. But a German and an American never wrote the same book or composed the same piece of music, because variety along these lines is infinite. At the same time, there are some who claim that there is reason why an author should have a perpetual right conferred. But this view is not sound. Man's intellect is a social as well as an individual product, and every man's work likewise is a social as well as an individual product. We could not have a Shakespeare in Africa. His genius was largely the result of life in England at a certain time. So it is with the work of every man, and if we were to make copyrights perpetual, we would then allow descendants to live upon the intellectual product of a man who is dead and gone. As a witty essayist has said, had perpetual copyrights been established in the time of Shakespeare, we would still be paying royalties to multi-millionaire heirs, doubtless Dukes of Shakespeare, for the privilege of reading the works of the immortal bard, although the sole social service of these heirs consisted in being born into this world to live in idle luxury! The purpose of copyright is to reward and to encourage service, and not to allow remote descendants to derive a support from those who have performed this service. The aim of these remarks is simply to show what society as a matter of fact seeks in copyrights.

Public Consumption Monopolies are monopolies designed to regulate consumption beneficially; either to promote some desirable consumption or

to restrict and confine within limits deleterious consumption. We have a number of public consumption monopolies. Whiskey and alcoholic beverages furnish the chief illustration. Thus we have the so-called alcohol monopoly in Switzerland, the federal government having a monopoly of the manufacture* and wholesale trade in distilled liquors; that its aim is to regulate and confine within limits the traffic in distilled spirits, is made manifest when we learn that a part of the governmental profits are used to fight the alcohol evil through educational measures. The South Carolina dispensary system affords another illustration. As is well known, it establishes a State monopoly of sales. It seems to be gaining favor and making headway. It is, however, simple enough, and we need not dwell upon it longer, for to do so would carry us to one side of our present purpose.†

Trade-marks are of more significance than one

* The Swiss federal government may make contracts with home or foreign distillers for the manufacture of distilled liquors. *Cf.* Vincent's *Government in Switzerland.* The work is published as a volume in the *Citizen's Library of Economics, Politics, and Sociology.*

† The salt monopoly of Zurich, Switzerland, maintained, not for fiscal purposes, but to insure a supply of pure salt at a low price, and the opium monopoly maintained by Japan in the island of Formosa in order gradually to stop the use of opium by the natives, afford further illustrations of public consumption monopolies.

who has not examined the question is apt to suppose. If one examines only their direct and immediate effects, it may be questioned whether they ought to be placed here. In one sense, they are monopolies. They give the use or monopoly of a certain sign or mark to distinguish one's own productions. The design is to secure to the individual the fruits of his enterprise and integrity; so that if a man builds up a reputation along any line, he may enjoy the fruits of it, and another may not step in and reap the benefits from a certain kind of goods which have value because they have been excellently manufactured heretofore. Of course, another person may build up another class of goods, and may establish value for another trade-mark. Any one can have his own trade-mark. It is monopoly only in a certain line, marking off the goods of one manufacturer.

The monopoly which a manufacturer may enjoy for goods under his name and trade-mark is frequently of an enormous value, as it affords a large surplus value, and the basis of it is twofold. The ordinary consumer is a poor judge of the quality of most commodities and is extremely timid in purchases; consequently he attributes value to a trade-mark which in his experience has stood for honesty. Moreover, custom is still a powerful force, and we adhere to old practices in our purchases. It is on this account that jobbers (wholesalers) dislike to purchase commodities bearing the name and trade-mark of a manufacturer, for this would enable the

manufacturers to raise prices on the strength of a reputation built up by the dealers themselves. The wholesale dealers, in buying bicycles, for example, will, if possible, give them a name of their own, which they can transfer to the product of another manufacturer, should they find it advantageous to purchase bicycles elsewhere. It is said that one of the largest jobbers in Chicago lost a great deal of money because, as the writer's informant said, "he was caught in this way." The jobber in this case bought and sold an article under the name and trade-mark of a manufacturer, and then, when his customers demanded this particular article, the manufacturer raised his prices. Frequently the jobber is forced to sell goods under the name and trade-mark of the producer, but he does so unwillingly. All this serves simply to illustrate the value of well-known distinguishing marks of a particular commodity. If, however, the privilege which this power gives is long abused, it is likely to be lost.

Custom in connection with a trade-mark may serve as the basis of at least a temporary monopoly. It is said that the manufacturers of thread have by combination established what may be termed a complete monopoly. If men are conservative, women are more so; and in many sections of the country, retail dealers say that they can sell only one kind of thread, whereas in a different section another kind alone is sought. The conservatism of the users of thread, together with the conditions under which the business is carried on, makes it

extremely difficult and expensive to introduce a new kind. A gentleman connected with a very large jobbing house gave to the writer this amusing illustration: He took home to his wife a new kind of thread for which the manufacturers were struggling to secure a place in the market. His wife complained that the thread broke and was generally unsatisfactory. He then removed from a spool to which she was accustomed the familiar label with the trade-mark, affixed it to a spool of the new kind of thread, took it home to his wife, and asked her to see if after all the old was better than the new. The following day he was informed that the old thread did not break and was decidedly superior in every way to the new! This is not to be dismissed as something merely amusing, for it presents an important psychological element of monopoly.

Fiscal Monopolies are monopolies established for the public treasury. We have to do here simply with a method of raising public money. The best illustration is that of the tobacco monopoly in France. It differs from the monopoly in distilled spirits in Switzerland. The latter was not established for revenue purposes. The tobacco monopoly was established for revenue purposes, and is very successful. It raises a large amount of revenue and is looked upon as simply one way of taxing the tobacco business. Another illustration would be the opium monopoly in India. Salt is a favorite subject of fiscal monopoly. A powder monopoly has existed in many places, although that had an-

other than a fiscal purpose. It was first established in order to insure to the government a good supply of powder for military purposes.

We come now to the second main class of social monopolies—namely, Special Privilege Monopolies—and take up first those based on Public Favoritism. Our first sub-class, then, comprises those monopolies which are due to favoritism of some sort or another on the part of government. The old monopolies established in England were of this class, inasmuch as they rested back on a grant of the government. We have already discussed these monopolies sufficiently for present purposes, and we know that through the action of legislative bodies and courts in England and in the United States, and also through American constitutional enactments, they have passed away.*

Here we have one kind of special privilege monopolies, but that kind has now been done away

* It would be interesting to read a fair account of the fight against these old monopolies based on public or governmental favoritism. An adequate history has doubtless never been written, but when one is, something will have to be said about Lord Erskine's services as described in his *Life*. It seems that the universities of Oxford and Cambridge had an exclusive right to publish almanacs, but when an action was brought against a bookseller, who, in defiance of the monopoly, printed better almanacs and offered them for a lower price, the judges declared the grant of the monopoly void. When a bill was introduced into Parliament to make it valid, Erskine appeared as counsel against it and defeated it in what is called a splendid effort.

with. Of course, these monopolies were not always an abuse by any means. The monopoly given to the East India Company was not at first held to be an abuse. It was then supposed to be necessary to have a monopoly in undertaking anything so hazardous at a time when trade with a remote country was so full of risk and men were not accustomed to great enterprises. Sometimes they were established for the sake of revenue. Sometimes there was downright abuse, and they were given through the favoritism of the monarch solely for his own pleasure.

Another illustration would be a monopoly founded upon a protective tariff. Whenever a monopoly has this basis, it is an abuse of the idea of a protective tariff, because protectionism claims to restrict competition, but not to cut it off.

Far more serious, however, are those special privilege monopolies which rest upon private favoritism. It may be objected to the use of the term social monopolies for this sub-class, that they are due to private favoritism, but are not social monopolies in the sense that they express the will of society. But they do give expression to the will of a class of society strong enough to gain its purposes, and society is responsible inasmuch as society is competent to prevent them.

It is favoritism which produces the chief class of special privilege monopolies, especially the favoritism of those corporations having natural monopolies. Of course, we have especially in mind the fa-

voritism of the railways. Here we have one of the chief causes of monopolies. Frequently monopolies which are attributed to other causes are traceable, strictly speaking, to private favoritism. This gives us a partial explanation of the "trusts," in so far as these have secured monopolies. When it is said that monopolies rest upon mere mass of capital, or upon special skill, it will probably be found, if the investigation is carried far enough, that they rest upon private favoritism. Professor Emory R. Johnson makes this statement regarding the sugar trust: "The sugar trust has been established because Mr. Havemeyer has great sagacity, and has had command of very large amounts of capital. The sugar trust has driven competition from a field where it was strong, and holds it out at present only by a very sagacious management of large amounts of capital." *

The present author does not believe that this is the correct explanation of the sugar trust. A recent French writer attributes it to the tariff,† as does Mr. Havemeyer himself.‡ The tariff has doubtless had much to do with it, but the author

* "The Relation of Taxation to Monopolies," in *The Annals of the American Academy of Political and Social Science*, for March, 1894.

† M. Paul de Rousiers, in his excellent work, *Les Industries Monopolisées aux Etats-Unis*, chap. iv.

‡ In his testimony at Washington before the Industrial Commission. Of course, it must not be forgotten that at the present moment there is severe competition in sugar.

believes that the railways also have had something to do with it. The sugar trust has been in the habit of quoting two prices to wholesale dealers—one at the refinery, and the other delivered at the wholesaler's place of business. Now the difference between these two prices has been less than the freight which the wholesaler would have to pay, in consequence of which the wholesaler has allowed the trust to pay the freight. The facts have been such that they convinced one of the large jobbers of the country — the writer's informant — that the sugar trust has enjoyed special railway rates which the wholesaler could not secure.

The cattle business has also been mentioned as a monopolized industry; it is not wholly a monopoly, but a partial monopoly, and rests probably upon special rates of the railway, or control over special terminal facilities, like stock-yards. It is significant that the president of the Long Island Railroad stated recently in a public address at Cornell University that there were only three men in this country who could ship wheat.* One of the men doubtless referred to is also one of those concerned in the cattle business who have something which enables them to hold a monopoly, in certain parts of the country, of the cattle business.

We can often see great principles at work in a small way; and we have an excellent illustration of

*He undoubtedly referred to Armour, Peavey, and Councilman.

this private favoritism in the transportation of baggage to and from railway stations in large cities. So far as access to the passengers in the stations and on the trains is concerned, the monopoly is granted to some one individual or company, and the result is that this person, to make a moderate estimate, frequently asks a price one hundred per cent. in excess of what the competitive price would be. The charge made by such a monopoly in Chicago for riding in a very slow bus from one railway station to another is fifty cents, while twenty-five cents would be a very fair price indeed. Between some points in Chicago where there is competition, one can ride in a bus for five cents,* and evidently a profit is made at a five-cent fare. Just one company is granted the privilege, and probably one of the reasons why the railways now have ushers in the Chicago stations ready to direct passengers, carry luggage, etc., is to make sure that the passengers wanting a hack or bus shall be directed to those having the monopoly.†

We come now to Natural Monopolies—those which arise from natural arrangements; which exist, so to speak, outside of the social will; those

* This does not include transfer of a trunk, as the fifty-cent fare does, although fifty cents is charged even if one has no trunk.

† This distinction between businesses which are natural monopolies and those which become such by alliance with natural monopolies is pointed out in chapter xxx. of the author's *Problems of To-day*, which appeared in 1888.

monopolies which are not an expression of the social will, but which very frequently exist in spite of the most pronounced social efforts. They are natural in the sense that they are outside of social arrangements and the social will.

The first sub-class comprises monopolies arising from a supply of the raw material so limited, especially geographically, that a body of men acting together as one man can gain control over the entire supply. In such a case, we have the conditions of monopoly, and if private favoritism aids these conditions already favorable, the tendency to monopoly is further strengthened. Anthracite coal furnishes the best illustration. Anthracite coal is produced only in a very limited area. The best mines are restricted to one section of Pennsylvania. But favorable as these natural conditions are, it has not been found possible to establish a monopoly without the aid of the railways, and when the railways cease to act in harmony, the monopoly in anthracite coal fails. During the past few months it has been said that the combination of producers is closer and more effective, but it is simply because the union of the railways with the coal producers rests upon a securer basis.

The sources of crude oil are spread over a wider area than is anthracite coal, there being in addition to other sources of supply the two great centres of production, Pennsylvania and Ohio. The natural conditions of monopoly are less favorable, but with the aid of railways and other transportation lines,

there is now going forward a development similar to that in the anthracite coal fields. The oil business heretofore has for a portion of the time been a complete monopoly so far as refining oil is concerned, but there has not been a monopoly in the production of crude oil. It looks now as if we would reach a monopoly not merely in the refining of oil, but in the production of oil itself, because the production is limited geographically. Natural gas affords another illustration. Another is afforded by articles, in barbarous and semi-barbarous countries, coming from animals and plants that are threatened with extinction. Here the inequality in resources and in capacities between highly civilized and semi-civilized nations affords special facilities in building up monopolies. It is because the semi-barbarous people are like children. They are ready to part with natural resources, with great treasures, for any gewgaw that strikes their fancy. Illustrations in abundance could be afforded, if there were space. It is said that ivory, boxwood, and certain other rare materials, the supply of which is either limited by nature or is in the hands of primitive peoples, belong to this class. Of course, one can see that under certain conditions it would be easy to establish a monopoly over the source of supply found in a semi-civilized country. All that would be necessary would be to induce these children—for, as we have said, primitive peoples are but children—to part with their treasures for a song, and then to find some way to keep them to their agreement, either

through a home government or through some outside government exercising pressure upon them.

This suggests one point of some importance, and that is the connection between monopoly on the one hand, and on the other, wealth-accumulation and wealth-concentration. We have to ask first of all, how many men are able to act together as a unit? The larger the number of men who are able to act together as a unit, the more easily can the monopoly be established. Where we have the supply limited at all, if a sufficient number of men act together they can establish a monopoly. Also, the greater the wealth in a few hands, the easier it is to establish a monopoly, because then the number of men who must act together as a unit is correspondingly decreased. It is at least conceivable that a comparatively few men should gain ownership of all the land of the world or of a country, provided the people remained passive. That, however, is not anything more than conceivable. It is not at all probable. Still, in this way the concentration of wealth is highly favorable to monopoly. Perhaps if wealth had not been so concentrated in this country we would not have had the anthracite coal monopoly, and there would be far less prospect of it in crude oil if the men interested in refining it had not such enormous wealth that they are able to purchase all of the land at least in a few States. So we see that the concentration of wealth has something to do with monopoly. The writer does not admit, however, that there is any monopoly

which is founded on mass of capital; but the discussion of this particular question is deferred. It is mentioned in this place simply to prevent misapprehension concerning the way in which, it is claimed, that concentration of wealth promotes monopoly; it is concentration of wealth in conjunction with other favorable circumstances. We must at this point sharply distinguish between two quite different things. It is true that some kinds of business have reached such a point in their evolution that they require a large mass of capital for their successful operation. The businesses of refining oil and sugar and of mining anthracite coal afford illustrations. It is an entirely different thing from what is here admitted to claim that mass of capital gives monoply.

Next we take up those monopolies arising from properties inherent in the business, and this gives us the chief class of natural monopolies. We have here the highways of all sorts, but especially railways with their terminal facilities, including the grain elevators and stock-yards; canals; the post-office; the telegraph lines, the telephones, irrigation-works, harbors; docks; light-houses; ferries; bridges; local rapid-transit agencies; gas-works, urban water-works, electric-light plants, etc.; some of them national, some of them local or municipal monopolies.

One marked distinction must be observed with respect to highways. In the case of all railways—where the transportation is over fixed rails — the

monopoly includes all the agencies of transportation, whereas in the case of ordinary public highways, for the use of which toll is charged, the monopoly is restricted to the ownership and management of the highway, and keen competition may exist among its users. The difference is due to technical conditions, for in the case of railways the use must be under unified control, whereas in the case of the public road, the use may be thrown open freely to all the world. Thus it is that the express business over railways is a monopoly, whereas in cities there is keen competition among those who carry small parcels for the general public.

We have monopolies so far as the natural geographical area of the enterprise is concerned. These different businesses have different natural geographical areas. The natural geographical area of the street-car line is the city. It is the same with respect to lighting enterprises. The natural area of railways is the nation, etc. We do find in Germany that the area of railways is the State and not the nation, but that is secured rather by artificial arrangement. The natural geographical area of railways in Germany would be the nation, but the state jealousies are of such a character that the natural development has been in a way prevented. The Prussian railways also extend outside of Prussia.

We notice also a tendency on the part of combination to absorb the different units, illustrated by the tendency of a few men to get control of the street railways in different parts of this country;

but that is more like the tendency to do business on a large scale. This appears to be all that it means, although here they are assisted by the great concentration of wealth. It does not seem that there is any natural tendency which would lead to the ownership of all the street railways in the country by one combination of men. But wealth has been so accumulated on the part of those who have the street railways in the great cities of the country that they must invest their money in some way, and they naturally turn to street railways elsewhere. It is possible that strikes may assist men to gain control of the railways in the various cities, because men may be sent from city to city in case of a strike, and so the great combinations may utilize their facilities in different cities to break down strikes.

The peculiarities of these monopolies have not as yet been given in the author's present treatment of the subject. It is possible to revise somewhat the characteristic features of these monopolies as compared with former statements and to simplify them considerably. Lord Farrer, in his work, *The State in Its Relation to Trade*, mentions five main characteristics of natural monopolies. These five are quoted in the author's *Problems of To-day;* but in his *Outlines of Economics* they are changed somewhat and reduced to three. It is there stated that the chief characteristics of natural monopolies of this kind are these: First, that the service or commodity makes use of certain peculiarly favored spots or lines of land; secondly, that it is furnished in con-

nection with the plant itself — railway service, for example, cannot be shipped, but must be used in connection with the plant—if it could be shipped as flour can be, then we would have a different result; and thirdly, that the returns are in accordance with the law of increasing returns — the greater the output, the larger the return.* The latter produces an inevitable tendency to monopoly. The cheaper the rate at which an increasing output can be furnished, the greater is the tendency to monopoly, because whenever two competitors unite, they can furnish the service or commodity more cheaply, and consequently there is always a gain; in the case of street railways, for example, there is a very decided gain, which is the inducement to combination. Men are in business for the sake of gain, and where the law of increasing returns applies to their business, there always stands before them one way in which they can increase their gains. This prospect of additional gain is like a magnet. Ultimately it is found to overcome all other obstacles. Sooner or later it comes about that there is a combination.

But there is an objection to that statement of the characteristic features of these natural monop-

* It is only just to state in this connection that much credit for this formulation is due to the discussion by Professor Henry C. Adams of the law of increasing returns. *Cf.* especially his monograph, "The Relation of the State to Industrial Action," in vol. i. of the Publications of the American Economic Association. Its date is January, 1887.

olies which is found in the *Outlines of Economics.* It might seem from the statement as there given that we have to do with three independent causes of monopolies. We have natural monopolies, the products or services of which can be furnished only in connection with plants occupying peculiarly favored spots or lines of land, because here we have to do with businesses which are operated far more cheaply when brought under unified control. But do we find the law of increasing returns operating without limit in these cases? If so, this operation must flow, so far as we now know, from mere mass of capital with its economies, and this is not admitted by the author to be a sufficient cause of monopoly.

It is now possible to obviate the objection mentioned and to simplify things somewhat. We can say that we have monopolies arising from the inherent characteristics of the business, whenever there is a decided gain resulting from the combination of all those engaged in it. *Whenever there is a decided and continuous increment in gain resulting from combination, we have a tendency to monopoly which will overcome all obstacles.* It is this increment in gain which *is the cause of monopoly.* Now that cause operates when we have to do with businesses which occupy peculiarly favored spots or lines of land, furnishing services or commodities which must be used in connection with the plant. We have, then, one single cause, and the circumstances under which this cause clearly acts are stated; whether it acts beyond these or not is a

matter of controversy. Under these circumstances, however, this cause surely does act.

It is believed that the statement of the law of monopoly here given is superior to the older statement, that increasing returns produce monopoly, as it is more general and avoids some of the difficulties which arise in connection with the law as previously formulated. It is the clearly marked increment in gain arising from combination proceeding even to the point of complete unity which produces monopoly in any particular kind of business. The causes of the advantages of monopolized over competitive business are more or less various. Let us take the case of the telephone. The importance of unity must sooner or later overcome all obstacles standing in the way of combination of the various telephone interests, inasmuch as the gains to be secured operate unceasingly like a law of nature, and ultimately must prevail. And why? it may be asked. It is because men are rational beings and prefer to do things in a superior way rather than in an inferior one. Two telephone companies cannot perform the same service which one can perform, inasmuch as complete unity is lacking. The object of the telephone is to bring people together, and the more completely it does this, the better it performs its functions. Two or more competing telephone plants, however, separate people, and thus operate antagonistically to the purpose for which the telephone was established. Ordinarily the increase in business will be

done at a relatively lower rate, at least up to a very large production, but monopoly is not dependent exclusively upon increasing returns, and even if it be true that additional telephone service, when once a given point has been reached, involves a relative increase in expense, the advantages and increment in gain from combination still continue.*

Many small cities now exhibit the disadvantages of competition in the telephone business. New companies have practically dislodged an old monopoly so far as local business is concerned, but the old company, alone having general long-distance connections, holds the field, and those using the new service are, as a rule, put to inconvenience when they are obliged to telephone to a distant point.

But does the law of increasing returns operate without limit in any one of the kinds of business here under consideration? It has never been proved that such is the case. The law of increasing returns operates up to the point of the full utilization of the existing plant of any one of these businesses, and very often that includes an indefinitely large increase in the quantity of production; but when we go beyond this point, expenses may increase even relatively. Let us suppose that we have a dynamo capable of running four hundred

* The alleged increasing expense attending increasing telephone services receives comment on pp. 78–79.

lights and that only two hundred are demanded at a given moment, but that later the demand increases until four hundred are required: in such a case the law of increasing returns holds until the four hundred are demanded; but if the consumption still increases until five hundred are called for, a new dynamo must be procured and expenses may be relatively greater until consumption again approaches the point of full utilization of plant. A street railway company can do business with decreasing expenses per unit of traffic, until its existing plant is fully utilized; but an enlargement of plant then involves a great outlay, and may increase the expense per unit of traffic. It necessitates a large additional investment of capital to replace occasional switches with double tracks, and to increase correspondingly the supply of power for operation. The expense of the unit of traffic must at first be increased thereby, unless the traffic is at once greatly enlarged. The probability in the case favors a relatively greater expense of carrying on the business for some time, this increase in relative expense gradually diminishing as the point of full utilization is again approached; but by the time this is reached, the relative expense may possibly be lower than it was before the plant was enlarged, although not necessarily so. Great profits come more from a vast business than from the decreased relative expenses.

Of course, there are those who claim that there is always an increment in gain resulting from combi-

nation. That is the socialist point of view, but it is not admitted by the writer. It is admitted that we have an increment in gain under the circumstances which have been mentioned, but not under all circumstances. It is right at this point that controversy arises.

Whenever there is a decided and clearly marked increment in gain resulting from combination, then we have a tendency towards monopoly; but it is maintained by the author that in agriculture, commerce (retail and wholesale), and in manufactures, that cause of monopoly does not obtain. It is claimed, for example, that it is not clear that there would be a decided increment in gain if Marshall Field & Co. and other large retail dealers in the same line in Chicago, or if Altman & Company and Wanamaker in New York city, should combine. The result would be doubtful, but it is probable that there would not be an increment in gain, but a loss, if they should combine.* But when we have

* First of all, we observe that these firms do not combine, and do not even seek combination. As their managers are shrewd business men, avowedly seeking gain, the absence of attempted combination suggests that in their opinion nothing would be gained thereby. Each firm has its own facilities and its own customers, and it would be scarcely possible to keep all these under consolidation. Should they combine their resources into a still more gigantic enterprise, the difficulty of unified management would be increased; and how could they prevent new enterprises of magnitude from springing up? These are a few of the considerations which occur in this connection.

a combination of competing gas companies there is no doubt about the result.

We do not need in this place to enter upon so exhaustive a discussion of the monopolistic evolution of businesses of this particular class as would otherwise be necessary, inasmuch as this subject has received frequent treatment by the author as well as by many others; and it is now generally considered that in all businesses of the kind mentioned there may be discovered a clear movement in the direction of monopoly which is bound ultimately to prevail over all obstacles. If we take them up and examine them one by one, we reach the same result in each case. A thousand efforts to secure competition in the gas business have not given one success as yet; a hundred efforts in England and the United States to secure effective competition in the telegraph business have proved failures. But without examining the thousands of futile efforts to introduce permanent competition into the field of natural monopolies, let us proceed at once to that business which offers the most serious difficulties to the student—namely, the railway business. When it is said that railways offer the most serious difficulties to the student who accepts the proposition that in their ownership and operation they are natural monopolies, reference is made to the student in the United States; for in other countries—like England, France, and Germany—the railways seem to be an unusually clear case. In Germany, a serious effort was made to

secure competition, the government owning some of the railways and operating them, and allowing private companies to own and operate others, though under strict supervision. This is a plan which has found advocates in our own country, but it was not successful in Germany. In fact, the difficulties of competition in the railway business between the government and private corporations are so enormous—indeed insuperable—that either the government or the private corporations must finally abandon the field. If the government service is poor and its competition ineffective, the result is general dissatisfaction. If the government has an excellent administrative system and competes seriously with private companies, it can hardly fail to drive them out of the field, because its resources are so much vaster. Even if the government does not push its superior capacity so far as a private corporation would, but allows its rivals to exist, those who feel its competition keenly will complain bitterly of what they regard as oppressive action on the part of the government which they themselves help to sustain. What might have been foreseen, and undoubtedly was foreseen by deep thinkers, actually happened in Germany. The private lines were purchased, and have since then been operated as a part of the government system. In France and in England, there have been many private companies, and there appears to have been at one time, in both these countries, more or less faith in the possibility of effective competition in the rail-

way business. As a result of industrial evolution, however, in each of these countries there has been a consolidation of all the lines into a few great systems, which, in the main, act harmoniously together, pursuing a unified policy with respect to price.

Before turning from these two countries, it may be observed that France offers an illustration of the proposition which was laid down in the discussion of the German experience. There has been a slight attempt at competition through the ownership and operation of lines by the government. The best lines, however, appear to have always been private property, and there is no evidence of any effective, determined competition on the part of the government. The consequence has been dissatisfaction with the government service.

Turning now to our own country, we find that there are some things in the United States which look like really effective competition in the railway business. Nevertheless, it is a fact well known to all who are familiar with this business that the most marked feature of its evolution in our own country has been consolidation.

The railways of our country are gradually being combined into a few great systems, acting together with increasing harmony. Precisely because the country is new and vast; because the problems presented to the owners and managers of railways are immensely complicated; and because the railway development is even yet far from complete, freight wars and passenger-rate wars break out from time

to time. Even in the case of railways, however, it is to be observed that popular parlance still speaks of the struggle between railway lines as war. One difficulty has been this: After a comparatively stable equilibrium has been reached by agreement some new and powerful rival appears in the field. This new and powerful rival may be the result of some new combination, or it may be the result of the construction of a new railway line. A new rival appearing in the field is like a new cow put into a pasture with a herd that has been there for some time. The cattle which belong to the field have through struggle reached what may be called a condition of equilibrium. Each one knows the strength of all the rest, and this strength is respected, so that quarrels are no longer necessary. But a new cow entering the herd, battles have again to be fought to determine the conditions of a new equilibrium. And so it is in the field of railways. When the strength of the new rival in the field is thoroughly tested, a new adjustment is secured. This sort of thing will have to go on till our railway system has nearly completed its development, so far as its main features are concerned, provided always that private ownership and management of our railways continue; and about that we shall for the present express no opinion either one way or the other.

After all, the agreements among the railways are of such a kind that for the most part they may be described as unified tactics with respect to

price. Passenger rates and freight rates are generally fixed by agreement. Even more than this is true. The rate of speed is very frequently limited by agreement, in order that those railways having the best natural facilities for speed may not utilize their facilities in the public interest, if such utilization is to the disadvantage of other railway companies. It is thus that there have been agreements with regard to the time of travel between New York and Boston, Chicago and Minneapolis, Chicago and Denver; and also, as appears from an interview with Mr. Depew, President of the New York Central and Hudson River Railway Company, between Chicago and New York. In this interview, as recently reported in the *Outlook*, Mr. Depew made the statement that his road was not allowed to utilize fully the advantages which it enjoyed for making fast time between the two cities last mentioned. The railways which do not have the best natural facilities for speed enter upon a rate war to prevent the most favored line from making its maximum rate of speed. On account of some fast trains which one of the lines between Chicago and Denver recently started, a rate war was for some time imminent; but it seems to have been averted by agreement.

It must not be supposed that a monopoly secured by agreement, or even by absolute consolidation, prevents all rivalry. A limited rivalry is compatible with general unity of management, especially as expressed in price. Agents of various

lines may go out of their way to solicit patronage at stipulated rates, and, of course, unless they are held under firm control, they will cut rates. This, however, is being prevented, precisely because a firm control is being established. There are also occasional efforts to gain an advantage over rival lines by offering superior advantages of one sort or another, although this rivalry does not go very far. Lines west of Chicago, for example, have chair-cars without extra charge, but lines east of Chicago have not. Doubtless, as one railway may not with impunity seek to gain an advantage over others through speed in excess of agreement, so one would hesitate about offering a decided improvement upon present facilities at the old rates, fearing attacks in the matter of rates from those who may be left behind. It is difficult to measure precisely how far one railway line competes with another with respect to comforts and conveniences, but each reader may on the basis of his own experience form an estimate, though he must be careful about reaching over-hasty generalizations.

It may, in conclusion, be observed that even complete or absolute monopoly does not prevent all rivalry in the direction of superiority. The various departments of one railway may engage among themselves in a rivalry amounting to quasi-competition. Very frequently the various departments of one business do thus engage in rivalry with each other. This is also seen in a university in which there is rivalry not merely with other universities,

but also among its own various departments; and in a well-managed university this rivalry furnishes a helpful stimulus, though it must be closely watched lest it degenerate into something baleful.*

We come next to monopolies arising from secrecy. Secrecy is not so available for an improvement in a machine, as the machine itself reveals the improvement, but it is available for processes. It is the case with many monopolies at the present time that they are in part based upon secrecy, and secrecy is, therefore, an important cause in a scientific treatment of the subject. One object of the patent system is to do away with this secrecy. It is held by the law-makers to be better that a man should publish to the world his invention or improvement and receive in return protection for a limited period of time, rather than that he should manufacture secretly. Yet, as has just been stated, secrecy is observed more or less in manufacturing at the present time, and it is quite possible that the amount of secrecy has been underestimated by modern economists, for it is rarely mentioned. The patent system does not seem to suit the needs of some manufacturers as well as secrecy. One of the largest tanners in the United States recently told the author that he always preferred secrecy to

* Those who wish a further elaboration of the author's views in this particular will find an early expression of them in his *Problems of To-Day*, and a more recent one in his *Outlines of Economics*, and *Socialism and Social Reform*.

patents. "Of course," he added, "the secret processes are likely to become known soon, but application for a patent would make them known at once, and while secrecy lasts there is an advantage over others." The Krupps, of Germany, the great cannon manufacturers, are, it is said, reluctant to allow visitors to enter their works. They have secret processes which they are desirous should not become known. It has recently been stated that the same is true of the Duponts, in this country, the manufacturers of gunpowder. They have secret processes which they wish to protect. The same is also true with respect to the manufacture of certain wheat preparations in Minneapolis. One is not admitted to the works without an introduction, and an assurance given to the proprietor that the visitor will not imitate the manufacture of anything that he sees there. It is also difficult to gain access to the Franklin Sugar Refinery, in Philadelphia. Secrecy, the author has been told, was long observed with respect to a very important part of the manufacture of india-rubber, and was at least a chief cause of the monopoly of some favorite articles made of this substance. Secrecy is also used very largely in the manufacture of chemicals—*e. g.*, soda-ash, by the Solvay Company, of Syracuse and Detroit, and in large chemical works in Germany. Secrecy, then, is a source of monopoly at the present time.

Opportunity will be found in later portions of this volume to say more about the causes of

monopoly, especially when we come to an examination of the limits of monopoly. We now pass to other classifications of monopoly, which we may go over more rapidly, as they are less elaborate and less important, although by no means without significance.

With reference to the completeness of the monopoly, we have a classification into:

A. Absolute Monopolies.

By this we mean a complete control over the entire supply of the article or service. A gas business, in the hands of one corporation, alone furnishing gas to the inhabitants of a given city, affords an illustration.

B. Complete Monopolies.

By a complete monopoly we mean a monopoly which results from substantial unity of action on the part of those in the business — what people ordinarily call a monopoly, although there may not be absolute control over the entire business. We might say, perhaps, that the Standard Oil Company is a complete monopoly, but it does not have an absolute monopoly. It is sometimes said that a combination of those furnishing from seventy-five to ninety-five per cent. of the supply of a commodity results in substantial control over price, and thus gives a monopoly.* The proportion of supply necessary to establish a monopoly must vary with the circumstances of each particular case. Monop-

* *Cf.* chap. i., pp. 8, 9.

oly, as it is defined in the present work, includes complete monopoly, and a higher form would be absolute monopoly.

C. Partial or Incomplete Monopolies.

Partial monopolies have already been explained in another connection. They exist whenever one or more persons control so large a portion of the field of a particular business that they are able to restrain competition and secure some of the advantages of monopoly; so that the conditions determining price and other conditions are appreciably different from what they would be under free competition.*

We may make another classification with reference to the increase in the supply of the monopolized articles:

A. Monopolies which permit No Increase in the Supply of the Monopolized Articles.

An example would be the works of an old master like Raphael. There is no increase of the supply possible.

B. Monopolies permitting an Increased Supply of the Monopolized Articles.

* It could be objected that incomplete monopolies are really not monopolies at all, as monopoly does not arise until unified control is secured. This is a logical objection which has force, but we find the category of businesses which correspond to this description, and it is believed that here, as so frequently elsewhere in real life, we may with advantage adopt a convenient nomenclature, even if we sacrifice something in the direction of strict logical requirements.

The supply of a monopolized article may frequently be increased by those who control the monopoly. That is the case, for example, with reference to the gas supply.

We may also have at this point a sub-classification with reference to the conditions under which the supply may be increased:

I. With Increasing Difficulty.

It is alleged that the telephone service in a great city is of this kind, but the author does not know whether it is true or not. It is so claimed by our private companies, but it is unfortunately true that their claim is not sufficient to convince some of us. To find out whether this is true or not, we would have to go to a place where the service is provided by public bodies.

Unless the point of full utilization of an existing plant has been reached, the alleged increasing expenses per unit of increasing business in the case of the telephone must refer to single items, especially those immediately belonging to that department of the service which has to do with establishing connections between the increasing number of users of the telephone. Obviously many other expenses do not increase in proportion as the business increases. Manifestly, also, the telephone business of any city can be conducted for less by one plant than by two competing plants, provided that the same ends are even approximately secured; for rivalry implies two telephones for a large proportion of the subscribers; and even if every subscriber had two telephones,

the same ends would be only approximately reached, as the absence of unity would be an inconvenience involving considerable annoyance and loss.

Apropos of the salt which must frequently accompany acceptance of the claims of great corporations, it may be remarked that the Western Union Telegraph Company claimed for years that it was impossible to have underground wires, although it was known at the time, and had long been known, that such an arrangement was quite possible.*

Another illustration of this sub-class would be the pictures of a great living artist, who had already painted as many as he could easily, but with a certain increasing difficulty might increase the number.

* When the author at one time was in the office of a large electric-lighting company in one of the principal cities of the United States, he pointed to the very large number of wires in front of the window where he was standing, which almost darkened the sky. In reply to his remark that it was really a shame to have all those wires in the street, and that they ought to be buried under the street, he was told "It is not possible." Presently, the same gentleman who had said that it was not possible to bury the wires was kindly showing the author photographs of European cities in which the company operated, and when it was pointed out to him that there were no poles in the streets of these cities and that the wires were evidently underground, he said, "Oh, yes, that is true; but it costs more!" When our large corporations tell us that things are not possible, it is found by experience that their remarks not infrequently require interpretation.

Another possible case would be some choice wines from vineyards in a particular section of the country.

II. With Constant Difficulty.

Possibly, after a certain point is reached, a copyrighted book would be an illustration. Up to that point, the larger the supply the less will be the cost per book. By the time we reach one hundred thousand we have perhaps got as low in price as possible. The publisher, in that case, could not furnish two hundred thousand copies for less per book than he could one hundred thousand.

III. With Decreasing Difficulty.

The gas business affords an illustration; but the qualifications already mentioned must be borne in mind.

The above classification is one which has especial importance in the discussion of price and of the taxation of monopolies.

The next classification, with reference to the area within which the monopoly operates, is as follows:

A. Local Monopolies.

These are monopolies extending over a relatively small area. The gas supply of any city is an illustration. There are various monopolies which are confined to a single locality. Then there are temporary local monopolies which under peculiar exigencies may arise. Two young men in Chicago last winter cornered the market on eggs and made fifteen thousand dollars out of the operation. The weather was so cold that eggs could not be shipped

to the city, and for a few days these speculators had a monopoly, accounts of which appeared in the newspapers.

B. National Monopolies.

C. International or Universal Monopolies.

There have been various attempts to secure universal monopoly, of which the copper monopoly of 1889 affords an illustration.

These are more or less arbitrary divisions, because a protective tariff may enable a monopoly to exist in one country when the same article or service is not monopolized in another country. There are attempts to establish monopolies beyond the nation, but how large will be the number of cases in which success will be achieved remains to be seen. There is no doubt that the oil companies of the United States and Russia are endeavoring to establish an international and even a world-monopoly. The Standard Oil Company has a complete monopoly in this country, in Germany, in England, and in France.

We may have a classification based upon the position which the monopolist holds with reference to sales and purchases. This gives us:

A. Sellers' Monopolies.

B. Buyers' Monopolies.

Buyers' monopolies are less frequent than sellers' monopolies, because the buyers of any commodity or service are so often more numerous than the sellers. There are, however, cases in which buyers have special facilities for establishing monopolies.

Wholesale buyers have some facilities, because they are not so large in number as those from whom they purchase. The buyers of labor power, especially, have facilities for establishing a monopoly. Professor Wilhelm Lexis mentions the buyers of second-hand goods. It is hard to see how a second-hand dealer has, in general, anything which can properly be called a monopoly, although, as Professor Lexis says, a man may feel a certain reluctance to sell a second-hand suit of clothes, and this may give the buyer an advantage.

We may also have the following classification with reference to the objects of monopoly:

A. Material Goods.

B. Services.

- I. Services which are incorporated in material goods—what the Germans call "material labor services," *e. g.*, the service in the transportation of freight.
- II. Personal Services; as those of a physician or nurse. But it is only rarely that a monopoly of this sort exists on a large scale. Where it is found, it is usually in some small town or rural district.

These, then, are the various classifications. Doubtless we could extend the classifications indefinitely from one point of view or another, but the classifications given are sufficient for our purposes. The most important classification, and the most thoroughgoing, is the second one, which is the classi-

fication with reference to the sources of monopoly-power.

It will be convenient now to present by themselves, without comment, the classifications of monopolies which the author offers, before passing on to classifications which other writers have given.

First Classification:

- A. Public Monopolies.
- B. Private Monopolies.

Second Classification:

- A. Social Monopolies.
  - I. General Welfare Monopolies.
    - 1. Patents.
    - 2. Copyrights.
    - 3. Public Consumption Monopolies.
    - 4. Trade-marks.
    - 5. Fiscal Monopolies.
  - II. Special Privilege Monopolies.
    - 1. Those based on Public Favoritism.
    - 2. Those based on Private Favoritism.
- B. Natural Monopolies.
  - I. Those arising from a Limited Supply of Raw Material.
  - II. Those arising from Properties Inherent in the Business.
  - III. Those arising from Secrecy.

Third Classification:

- A. Absolute Monopolies.

B. Complete Monopolies.

C. Partial or Incomplete Monopolies.

Fourth Classification:

A. Monopolies which admit of No Increase in the Supply of the Monopolized Articles.

B. Monopolies which admit of an Increased Supply of the Monopolized Articles.

I. With Increasing Difficulty.

II. With Constant Difficulty.

III. With Decreasing Difficulty.

Fifth Classification:

A. Local Monopolies.

B. National Monopolies.

C. International or Universal Monopolies.

Sixth Classification:

A. Sellers' Monopolies.

B. Buyers' Monopolies.

Seventh Classification:

A. Monopolies of Material Goods.

B. Monopolies of Services.

I. Services Incorporated in Material Goods.

II. Personal Services.

It will be profitable to make a comparison between the author's classifications of monopoly and other classifications. Attention is first of all called to the classification given by Senior in his *Political Economy*. That is a classification which is meritorious. It appeared at an early date, and shows an

attempt to treat the subject critically and scientifically.

He divides monopolies into four kinds. The first class of monopolies consists of those businesses in which the monopolist has superior facilities as a producer and can increase with undiminished or even increased facility the amount of his product, but where he has not the exclusive power of producing. This is not a true monopoly according to our definition. However, the one who is in this position may become a monopolist. If any one has superior facilities or advantages and can increase indefinitely his production, he is in a position to become a monopolist. Senior instances the case of Arkwright, the yarn producer, who could not sell yarn for more than others, but who, selling at the same price, was in a position to reap an enormous gain. Thus his price was limited by what those could produce it for who had less desirable facilities than he, but he did not have the whole field and did not choose to drive out all others. Here was a large differential gain, but not a complete monopoly.

The second kind consists of those who have no competition, and enjoy a supply of which no increase can be effected, so that really there can be no competition. Senior instances the case of the owners of vineyards producing choice wines—say, "Constantia," which has a peculiar flavor. This was all owned by one man. No increase and no competition were possible.

The third kind of monopoly consists of those cases in which the monopolist is the only producer, and in which, consequently, there is no competition, while the business is of such a kind that the monopolist can increase his production indefinitely. Copyrighted books afford an illustration. Here we have a monopoly, and the supply can be increased.

The fourth class of monopolies exists where production is assisted by natural agents, limited in number and varying in power, and repaying effort with a decreasing reward; in other words, businesses of decreasing returns, especially agriculture, where production can be increased, but where the increase is attended with increasing difficulty.

We have, then, as the first class of monopolists, those who are subject to a certain kind of competition, for the time being at any rate, but who are in a position eventually to establish monopoly. The second and third classes are real monopolists. In cases of the fourth class, we have only differential gains.

The next classification to be mentioned is the more elaborate one of Professor Lexis in the German Dictionary of Political Science.* He makes two main classes:

A. Sale Monopolies, or Sellers' Monopolies.

B. Purchase Monopolies, or Buyers' Monopolies.

His discussion is concerned principally with Sell-

* *Handwörterbuch der Staatswissenschaften,* edited by Conrad and others.

ers' Monopolies, and these are the ones usually referred to when monopolies are discussed. Much that he says in regard to this class would be applicable also to the other class. His sub-classes under A are:

I. Natural Monopolies.

II. Artificial Monopolies.

Natural Monopolies rest upon scarcity, and Professor Lexis says that among these, personal talents form the most easily understood class. That is not, in the present writer's opinion, correct. No one, by reason of his talents, is in such a position that he is a genuine monopolist. Persons of great talent may have something approximating monopoly, but that is all. A singer like Patti, for instance, is in a class by herself.

Artificial Monopolies, according to Professor Lexis, rest upon (*a*) combination or secrecy of technical aids, (*b*) State institutions—upon the power of the State. Where the conditions for natural monopoly are present in part, but not completely, the process is completed by an artificial combination on the part of the sellers, removing competition where it would otherwise remain. When the production can be increased at pleasure with constant difficulty, there cannot be an artificial monopoly; it is simply temporary, unless aided by State restriction, as by the prohibition of imports or high protective duties.

Mere combination by itself,* Professor Lexis

* Not even if aided by a large mass of capital.

maintains, cannot establish monopoly. That is a position which the present author has long taken and upheld against the writings of Professor J. W. Jenks and some other economists, and he is glad to have such strong support. Professor Lexis says truly, that there must be other conditions present to make anything more than a temporary monopoly possible. If these other conditions are not present; if there is no State aid, and if there are no natural conditions favoring monopoly, then it is held that there can be nothing more than a temporary monopoly.

Under the second sub-class (*b*) the same author has Public Artificial Monopolies. Here he has reference to patents, etc. He also puts under this head trade licenses, like those in Germany permitting one to undertake the business of an apothecary. Here we have only a limited competition, not real monopoly. He is here inconsistent with his definition, for, to use his own phrase, we do not in this case have "unified tactics with respect to price."

He has also the following sub-classes:

III. General Monopolies.

IV. Local Monopolies.

We have had this classification, and need not now dwell upon it. Attention may, however, be called to an instance given by Professor Lexis of a world-wide monopoly. He says that the London house of Rothschild had a monopoly of quicksilver from 1835 until the discovery of the mines of cinnabar

(red sulphid of mercury) in New Almaden, California. This monopoly embraced the entire earth, and rested upon an agreement with the Spanish government, the owner of the quicksilver mines of Almaden, and the Austrian government, the owner of the quicksilver mines of Adria. With these governments the London house of Rothschild had formed a combination. This would be an illustration of a world-wide monopoly resting upon a natural basis and completed by combination.

It is said that the diamond fields in some parts of the world are monopolized. Professor Lexis mentions the attempts that have been made to monopolize tin. It is comparatively rare, although found in more places than quicksilver, but these attempts have been only temporarily successful. Between 1887 and 1890 there was a strong effort to monopolize copper, but this failed because the copper production was not sufficiently limited — was too extensive and too easily enlarged. In other words, the natural basis was too large, and the monopoly failed.

Then a distinction is made as follows:

V. Temporary Monopolies.

VI. Permanent Monopolies.

Professor Lexis says that if the monopoly is permanent, the annual income is capitalized, and the new purchaser accordingly has no special advantages, but has to be satisfied with current returns upon his investment. He says that the purchaser has no monopoly. That is not strictly true. Take

the quicksilver mines. Suppose there is re-established a world-monopoly. The one who purchases some interest in it may have no special advantage over the one who makes another kind of investment, because the price is so high that it takes out for the new purchaser all advantage. But he does have a monopoly quite the same, although the advantage of the monopoly has been kept by some one else. The new purchaser does not get in "on the ground floor," but gets in only when the special advantages have already been reaped: in other words, he does have the monopoly, although he reaps no special advantages from his monopoly. Of course, that will always be the case. It is the same with personal privileges. Professor Lexis mentions the fact that the number of agents on the Paris Stock Exchange is fixed at sixty, and that the price for the privilege of dealing on the Bourse is about two and a half million francs. One who has this privilege does not sell it except at a price which will reduce the advantages of the position to those of positions which are competitive. The monopolist does not put his position into the competitive world until he has taken out all the advantages.

Professor Lexis gives as his next classification:

VII. Productive Monopolies.

VIII. Commercial Monopolies.

As the terms imply, Productive Monopolies are monopolies on the part of producers, using the word producers in the popular sense, referring es-

pecially to those concerned with raw materials and to manufacturers; while, of course, Commercial Monopolies are those in the mercantile field. An illustration of the latter would be the East India Company.

Finally, he makes this distinction:

IX. Absolute or Perfect Monopolies.

X. Relative or Imperfect Monopolies.

There is, in the author's opinion, no such thing as a relative monopoly. There is a partial monopoly. Professor Lexis puts land under the head of relative monopolies; but this is not correct, for, to use his own expression, there is no "unity in price tactics" among landowners and cultivators.

Under B, Purchase Monopolies, or Buyers' Monopolies, Professor Lexis mentions local dealers as having such a monopoly, especially with respect to those indebted to them. They sometimes have a sort of monopoly. He also mentions second-hand dealers. They might have a monopoly in some places.

We turn next to the classification given by Professor Emory R. Johnson for himself and Professor Simon N. Patten.*

			Form	Income	
Monopolies.	Differential		Land	Land rent	Restrictive monopolies enjoying fixed surplus
			Personal	Personal rent	
	Non-differential or Marginal	Optional	Land	Marginal rent	
			Goods	Interest	
			Labor	Surplus wages	
		Exclusive	Private	Tallage	Exclusive monopolies enjoying free surplus †
			Public	Fiscal taxes	

* It is primarily, Professor Johnson tells us, the work of Professor Patten.

† See Tables on pp. 79 and 87 of "The Relation of Tax-

We find illustrated in this statement of monopoly by Professors Patten and Johnson just what has been already said—namely, that to them monopoly absolutely covers the entire field of industry and of economic life. Where we have economic life, there we have monopoly. Attention is now and here simply called to one or two expressions.*

"Differential monopolies," according to the theory of the present work, are really not monopolies at all, but businesses in which certain persons have an advantage over others. "Non-differential monopolies" are those businesses which afford a surplus at the point of marginal production.† Professor Johnson says, for himself and Professor Patten, that every pursuit affords such a surplus. He calls some monopolies optional monopolies, because in those cases the monopolist can put his resources to one use or another, and that gives him a marginal surplus. Professor Johnson also includes exclusive monopolies, which are, according to our definition, the only ones which are real monopolies. He says that private exclusive monopolies have a gain which he

ation to Monopolies," by Professor Emory R. Johnson, in *The Annals of the American Academy of Political and Social Science* for March, 1894.

* The part of this work dealing with the history of the theory of monopoly will discuss Professor Patten's theories at greater length.

† In production under the least favorable circumstances under which it is carried on, surplus means an excess above subjective costs or sacrifices.

calls "tallage," and that public exclusive monopolies may have a gain through fiscal taxation. All those monopolies which are not exclusive are termed restrictive monopolies, because "the monopoly forces do not here prevent competition, but merely restrict it within certain limits."

Professor J. W. Jenks incidentally gives a classification of monopolies in his valuable article on "Monopolies in the United States" in Palgrave's *Dictionary of Political Economy*. He divides them into three main classes—namely, Legal Monopolies, Natural Monopolies, and Capitalistic Monopolies. Legal monopolies include patents, copyrights, etc.; while his class Natural Monopolies includes such businesses as railways, gas-works, etc. Capitalistic monopolies are, according to this author, monopolies which rest on mass of capital, his idea being that quantity of capital can secure monopoly. The present writer's dissent from this view has already been mentioned, and will later receive fuller treatment.

The best classification of monopolies to be found in any text-book of economics is that which Dr. Charles J. Bullock gives in his excellent manual, *Introduction to the Study of Economics*.* It is as follows:

A. Personal Abilities.

B. Legal Monopolies.

  I. Private Monopolies, such as patents and copyrights.

* First edition, 1897.

II. Public Monopolies, such as the postal business of modern countries.

C. Natural Monopolies.

I. Monopolies of location, such as the monopoly of anthracite coal.

II. Monopolies due to consumption of products in connection with the plants, such as gas- and electric-light works and railways.

D. Capitalistic Monopolies; such as agreements, pools, and the former trusts, and the vast corporations which now replace the trusts.

This classification has the merit of compactness, and Dr. Bullock's discussion of monopolies contrasts most favorably with what is found in the ordinary text-book of economics. What the writer has said already and his own classifications show the points of difference between Dr. Bullock and himself.

Mr. Sidney Ball, of St. John's College, Oxford, incidentally gives a brief classification of monopolies in an article which he wrote on "Mr. Herbert Spencer on Industrial Institutions," in the *International Journal of Ethics* for January, 1898. He gives simply three classes of monopolies, as follows:

I. Monopolies of Efficiency, as in the case of Krupp or Armstrong.

II. Monopolies of Local Services, etc.

III. Monopolies resulting from Combination, as in syndicates and trusts.

The present writer denies that there is such a thing as a monopoly of efficiency, holding that efficiency can give only differential gains somewhat analogous to the rent of land. So far as the third class is concerned, he has, in common with Professor Lexis, already expressed the conviction that combination itself cannot produce monopoly. Doubtless, however, Mr. Ball did not intend the above as a complete scientific classification.

CHAPTER III

THE LAW OF MONOPOLY PRICE

THE mention of monopoly price* brings us face to face with the chief thing in the power of monopoly; but it is a mistake to suppose that it is the only thing, and some are making a mistake in their discussions because they have excluded almost every other aspect of the subject except this price-power of monopoly. The monopolist has the power of withholding supplies or of furnishing the supplies irregularly, and that power enables him

* The term monopoly price is used in two somewhat different senses. Sometimes it signifies the price actually charged by a monopolist, and sometimes it means the price which will yield the highest net returns. The price actually charged may be regulated by statute, and this may differ from the price which would yield the highest net returns; again, the two may differ because the monopolist fails to discover the price yielding the highest net returns, as, in fact, he frequently does. It was, for example, a long time before the postal authorities of the world discovered the profitableness of low postage rates on letters. It is believed, however, that in this work the variation in use, which cannot be avoided without wearisome circumlocution, need occasion no confusion of thought.

to break down competition. It is through this power that the monopolist can drag others under the wheels of monopoly and crush them out. His is not simply the power of raising the price. The power of withholding supplies or of furnishing them irregularly has likewise to be considered. For example, take the way in which the railways sometimes break down a coal business. It is not simply by charging a higher rate to those who are destined to be crushed, but by withholding cars for the transportation of their coal. Here are two rival companies: one is destined to be crushed, and the other "stands in" with the railway company. For some reason, this one's cars are sent through promptly, while those of the other are side-tracked.* It is hard to understand this, if one offers complete credence to the statements of the offending companies, but it happens so again and again. There are thousands of ways besides the control over prices whereby competition can be crushed and the power of monopoly exerted over industry; and it appears necessary to state these things at the outset of this discussion of the law of monopoly price, so that our readers may at once know that power over price does not include all the power that belongs to monopoly.

* On p. 48 of his work, *Les Industries Monopolisées aux États-Unis*, M. de Rousiers uses these words: "A partisan of the trust said to me, 'The Pennsylvania Railroad could not refuse the cars of a competitor of the Standard Oil Company, but nothing could hinder it from side-tracking them.'"

So far as price is concerned, the power of monopolies consists not merely in raising prices, but also in lowering them.* The railways can ruin a manufacturer or dealer just as well by lowering as by raising the prices charged for their services. Suppose, for instance, that prices are reduced just after certain dealers have secured a large supply; then their competitors can undersell them. If those "on the inside" get a suggestion or a "tip" that freight rates will be lower at such and such a time after their rivals have laid in their supplies, the favored ones can ruin those over whom they have so marked an advantage.

It is by lowering freight charges, it is alleged, that railways crush out independent manufacturers in Colorado. The writer has been told by a gentleman who may be regarded as, in a peculiar degree,

* The limits of the power to lower prices are found in the resources of the monopolist, and these are so variable that it does not appear possible to formulate any scientific generalization concerning them. These resources include credit, and in the case of monopolies with immensely valuable fixed and specialized capital, like railways, an unprofitable business may be continued for years, the losses amounting to millions, and possibly, in some cases, to tens of millions, before the end is reached. This power of continuing business, even at a loss, for so long a time is sufficient to crush out any opponents except a few who likewise have unusual economic strength. When two monopolistic concerns with gigantic strength engage in warfare through a reduction of prices below cost, the waste of wealth involved may become a matter of national significance.

the spokesman of the best and most conservative elements in Colorado, and who is himself a friend of more than one railway president, that the railways, in order to gain their end, lower the freight charges to producers in the East whenever manufacturing competition shows itself in Colorado, until they have crushed out production in that State; and that they then raise the rates again, the purpose being to keep up the volume of freight traffic from the East with the high charges to which it is subjected.

Now when we consider monopoly price, we have to ask primarily, What are the limits of the power of monopoly for raising price? What is it that the monopolist has control over, and what has he not control over? According to our very hypothesis, the monopolist has control over the supply. He can, for the time being at any rate, furnish much or little as he pleases. He can ask any price which he pleases, and some of the cruder statements simply leave it there. But there is something that the monopolist does not have control over, and that is demand or consumption. And it is in demand or consumption that the monopolist finds the limits of his power with respect to price. The gains of the monopolist may be regarded as a function of two interdependent variables—to use a mathematical expression—the number of sales and the profit on each. What the monopolist wants, therefore, is to get that combination of number and profit which will give him the maximum net returns, or, on the

other hand, the minimum net loss, if it is a question of loss, as on an unsuccessful copyrighted book, which cannot be sold at a profit.

What, then, are the limits of monopoly? The monopolist constructs a sort of table. In one way the entire thing is experimentation. There may be a certain monopolized article or service for sale. What are the limits of price? The highest price tried, we will say, is one thousand dollars; but as this induces no sales, there are no profits. The lowest price, we will say, is nothing; the demand, perhaps, a million; profits are less than nothing, and there is loss. Within the field of monopoly there is an infinite variety of prices which will give the highest net returns, depending upon the intensity of the want in each case, and upon the resources of those who demand the service or commodity. As has just been said, it is simply a process of experimentation. We have a demand rising as price decreases; and, on the other hand, the profit on each unit falling as the price decreases. We stop at the point where the total net profit from increasing sales just counterbalances the decreasing profit on each unit, or a little less than counterbalances it.* We stop there, because if we were to carry production further, or our sales further, there would be a smaller total net return. Let us take the street

* It is here taken for granted that action requires motive, and that without at least a minimum increment in profit, the motive of action would be wanting.

railway business as an illustration. Assume a price of five dollars for a ride. In Chicago we would have but little traffic. Occasionally somebody would want the service then and there sufficiently to pay five dollars, and there would be some traffic. Put the charge per ride down to four dollars or three dollars, and traffic would increase. Put it down to five cents, and there is an enormous increase. The profit will probably increase greatly down to five cents, because five-cent fares in American cities induce a very large number of purchases; but when we go below five cents to three cents, the profit on each unit begins to fall off very rapidly. Probably it is not ordinarily advantageous for the monopolist to go below five cents, because the sales would not increase sufficiently to offset the loss in profit on each passenger.

There is a variation in the price schedule, and the point at which the fall in prices will stop varies according to the resources of those who purchase. The fall in prices will vary from time to time, and from country to country. The time may come when in Chicago a three-cent fare will be more profitable than a five-cent fare.* It is quite conceivable. And it is conceivable that a charge of ten cents may be profitable at one time and a charge

* Recently one street-car line in Chicago has tried a rate of twelve rides for a quarter as an experiment, and it has been said that the increase in traffic has been so phenomenal that the new rate may prove more remunerative than the old charge of five cents.

of five cents at another. In California, some time ago, a charge of ten or fifteen cents—*i. e.*, "a bit"—was doubtless more profitable for many small services than five cents, because money was abundant, and people spent it freely.

Similarly, there is a variation from country to country, just as from time to time. The fare which is most profitable in New York would not be the most profitable in Berlin, because in the latter city we would not go down so far relatively into the mass of the people with a five-cent fare as we do in the former. If we stop at five cents in New York we have included the great mass of the people in the purchasers of street-car service. In Germany this would not be so, because the average means of the people are less, and they are more careful about small sums of money. The writer has little doubt that the price of highest net returns for a ride on the street cars in Berlin is that which is actually charged, namely, ten pfennige for one of their zones. Most people do not ride more than a zone. The ordinary man in Berlin pays just ten pfennige, goes that far, and then stops and walks a little distance. Even were the charge in Berlin not limited by law, the street-car companies there would probably not wish to charge more, because the present price yields the largest net returns.

We have already discussed the dependence of monopoly price upon the law of highest net returns, but something more fundamental than what is found in the ordinary formulations of this law is

needed to supplement it. The considerations contained in the preceding paragraphs lead to a new law of monopoly charges, which the writer has formulated as follows: *The greater the intensity of customary use, the higher the general average of economic well-being, and the more readily wealth is generally expended, the higher the monopoly charge which will yield the largest net returns.*

We may adduce the customs of the English and of the Germans with respect to the use of tea and coffee as an illustration. The English use relatively very large quantities of tea and very little coffee, being strongly attached to the former and caring comparatively little for the latter. The statistics of consumption show that precisely the reverse is the case in Germany. If a fiscal monopoly of tea and coffee, therefore, existed in both countries, the government would find its control over price materially influenced by custom. England is a country in which there is a higher general average of economic well-being and in which people expend wealth more readily than in Germany; and so, if other things were equal, the monopoly price of coffee would be higher in the former country than in the latter. But as coffee does not have a strong hold on the English, a high price would discourage the consumption in England more than it would in Germany, inasmuch as to the Germans coffee comes near the class of goods designated as necessaries. Custom might, therefore, counteract the higher average of economic well-being and the

greater general readiness in the expenditure of money in England to such an extent that monopoly prices would be the same in both countries. When we come to tea, however, as custom reinforces wealth conditions, the divergence in price would be very great, and it is quite possible that the monopoly price of tea in England would be more than twice what it would be in Germany.

It is quite natural, then, that monopolists should seek to draw custom to their aid. This is done by cultivating habits of use by means of low prices until these habits become so fixed that the use becomes almost a necessity. It is shrewd practice to establish low prices at first for telephones or electric lights, so that their use may become general, and then to raise prices when these services seem to those who enjoy them almost necessities. Practices of this sort are so common that the reader will probably be able to give illustrations which have come within his own field of experience or observation.

Our law of monopoly charges, then, explains variations in monopoly charges from time to time and from place to place. A good illustration is afforded by the fiscal monopoly of tobacco which exists both in France and in Austria. It is possible in France to put far more taxation * into the price of a given

* The profits on tobacco are spoken of as taxation, inasmuch as the monopoly exists primarily for the sake of the public revenue which it yields. The monopoly is looked at simply as one method of taxation. This view is not

quantity of tobacco than in Austria. Indeed, it is reported that the monopoly price of tobacco in France is such that it includes more than twice the revenue for the government that the monopoly price in Austria does. It is stated that the net revenue to the public treasury derived from a hundred pounds of tobacco in France is from fifty to sixty-eight dollars, whereas in Austria it is less than twenty-five dollars. Such a difference in revenue would seem to indicate either a striking variation in wealth conditions or in customary use, or a marked difference in skill of management. The French are a richer people and spend their money more readily. If they did not, the sales of tobacco would so fall off with the higher price necessary to secure the revenue that the government would derive a larger gain by lowering the price. It is, then, apart from the other influences mentioned, because the French are a richer people that the great difference obtains. It is for the same reason that they are able, having a monopoly, to realize a greater profit on every hundred pounds of tobacco. In Austria the government must be content with less than one-half of the amount which France derives. Of course, the government, having a complete monopoly, could put on a tax which would make the price higher, but if it did so, the sales would fall off and the profit would be diminished.*

absolutely correct, but it does not require criticism in this place.

* The author takes these facts concerning the tobacco

Another illustration is the difference sometimes found between the prices of American manufactures in this country and abroad. In order to secure the most remunerative sale of a patented or otherwise monopolized American article abroad, it is occasionally necessary to charge less than in this country, because if the American prices were charged—say, in Germany—the sales would fall off and the article would become unprofitable. A friend of the writer was several years ago offered a rate of $12.50 on sewing-machines on board a ship in Baltimore Harbor destined for Brazil, whereas he could not have bought them to be sold in Baltimore for anything like that amount. He could sell them in the Brazilian market far more cheaply than in the American market. And why? Probably because those owning and manufacturing the machines, having to consider the price which would yield the largest net return in Brazil, found that it was less than in this country, and therefore put a lower price on the goods destined for foreign consumption than on those destined for American consumption.*

monopoly in France and in Austria from a treatise on public finance, and he assumes no responsibility for their precise accuracy.

* It is also said that one reason why American goods are sometimes sold abroad more cheaply than at home is that the foreign retailer is willing to take a lower rate of profit. Other reasons given, as, for example, the quicker returns on foreign sales in the case of agricultural implements, need not detain us here, as they do not affect the general principle which we are considering.

Another illustration would be the charge for books in England and in this country. In England there is a class of purchasers of books who will buy three-volume novels at half a guinea a volume, and consequently this price is a profitable one. The American publisher does not find it profitable. The price which yields the highest net returns in England is higher than in this country, and that for two reasons: First, because a larger number of people of considerable means will pay the higher price; and, secondly, because if the price were to be lowered there would not be reached so great a purchasing public as in this country. The American is not so particular about a five-cent street-car fare,* but when it comes to paying seven or eight dollars for a book he is more careful. It is also true, as just stated, that it is not possible to reach such a large mass of readers by lowering the price as in America, because here we have a large mass of intelligent but not highly trained people, and that class can be reached by putting down the price.

* An illustration of the neglect of small economies by the American may be seen any day in the city of Washington, D. C. The street-railway companies in that city sell six tickets for twenty-five cents, but charge five cents for a single ride, unless six tickets are bought. The possible saving is $16\frac{2}{3}$ per cent., but the number of people who neglect to effect this saving is surprisingly large, as is demonstrated by the frequency with which the five-cent fare is paid.

This also illustrates something else. It illustrates the difficulty of fixing a monopoly price. When, as secretary of the society, the writer was publishing the monographs of the American Economic Association for several years, it was his office to put a price on the monographs. It was also his duty to get a revenue for the association, because without such a revenue the association could not continue its existence. The question was, If the price of the ordinary monograph is put down from seventy-five cents to fifty cents, will there be a sufficient increase in sales to counterbalance the loss in profit on each sale? The writer's policy was to ask the higher price. Some thought that he was wrong, but there was no evidence that by lowering the price he would reach a large class of people. He believed that at seventy-five cents he reached the class of people who would read these monographs, whereas he could not hope to reach the working people or any very large class of people even at fifty cents.

We have now shown that monopoly causes variations of price from time to time and from place to place; but we have hitherto assumed uniformity at the same time and place. In discussions of monopoly, such uniformity at one particular time and place is generally assumed. As Professor Walras has well shown, however, monopoly price, if left to itself, is not uniform even at one time and place. Consequently, wherever we find uniformity, pressure is shown. Generally there does exist pressure of some

sort, so that monopoly cannot, without some pretext, charge one person more than another; and in the case of the great monopolies with which we are chiefly concerned in the United States, there is a pressure of some sort which at one particular time and place compels a uniform price. But where the monopolist is free, he will vary the price. The price will not be uniform where there is a possibility of variation. There is such a possibility from country to country, as we have seen. At a price of one hundred, the monopolist reaches a certain number of purchasers; at ninety, he reaches another and a larger number. The street-car companies find this so, and therefore reduce the price from ten to five cents in any place where the net gains at this price are uniformly the greatest.* The question which would naturally occur to them would be, Would it not be a good thing if we could keep our ten-cent customers while from others we accept five cents? That is a great problem, and one upon which the American monopolist has not as yet worked so carefully as the foreign monopolist.

The monopolist will try sooner or later to dis-

* The elevated railways in New York city, several years ago, reduced fares from ten cents to five cents, although no statute compelled the management to do so. It is possible that a law establishing a five-cent fare was anticipated, as only the veto of Governor Cleveland had prevented the enactment of such a law a short time before; but it is also probable that a larger profit was expected from the lower rate.

cover some way to reach the different classes of customers with different prices. Professor Walras mentions the case of a manufacturer of chocolate. He puts it up in a modest wrapper and sells it at a moderate price; then he puts up the same grade of chocolate in *papier glacé*, calls it "Chocolat Superfin," and sells it at three francs a pound; then wraps it in gilt paper and calls it "Chocolat des Princes," and sells it at four francs a pound. Another, in commenting upon Professor Walras's illustration, adds that this chocolate manufacturer omits the flavoring, calls the resulting preparation "Chocolat de Santé," and charges for it from five to seven francs per pound.

Another illustration is found in the custom which certain firms practise of publishing different editions of books. They get out their high-priced edition to reach one class of customers, and then, when they have exhausted that class, they get out a cheaper edition to reach the class below. This, however, is true of the English publisher to a greater extent than of the American.

Wherever possible, then, we find that monopoly results in variation in prices to reach different classes of customers. The reason that we do have one universal price in many cases is because there is some sort of external pressure that produces one price. The street-car and the railway companies could not charge you ten dollars and me five for a given distance. We see this same tendency to variation in price as a development of American railways. They

try to suit all classes. Some trains go a little faster than others, and for such a higher fare is charged. Then there is an extra charge for drawing-room cars, etc. But there is not always a difference in quality commensurate with the difference in price.* Another illustration of monopoly price is afforded by the custom of charging two prices for gas, one when used for illuminating purposes and one when used for fuel (cooking, etc.). It is well known that the gas is in both cases the same, but is simply measured by two meters. The gas company finds that the price of gas which will yield the highest net returns when used for illuminating purposes is considerably higher than the price which will yield highest net returns when gas is employed as fuel, and by means of the two meters maintains the two monopolistic prices. How different from a competitive price! If our grocer should, when selling us flour, ask if we intended to use it for cake or bread, in order to charge a higher price for the cake-use than the bread-use, we would regard it as a piece of impertinence on his part, and would not at all submit to his efforts to introduce class price. His endeavors would be altogether futile. There has recently been observable a marked tendency in this country to reach different classes of consumers

* Frequently, first- and second-class passengers enjoy, as a matter of fact, precisely the same conveniences, although they pay quite different prices for their tickets. Railways running between Buffalo and Chicago afford an illustration of this statement.

with different prices for very similar goods or services, and we shall probably see a development along this line. That is one of the characteristic indications of monopoly—the absence of uniformity of price.

A difficulty suggests itself at this point: It has been suggested that individual variations in prices of non-monopolized articles and services are found. This is true; but it is true only in so far as competition fails to do its perfect work, for the very hypothesis of perfect competition is that in a given market at a given moment there is one price, and only one price, for any article there offered for sale. The truth is, however, that competition does its perfect work as an exception, rather than as a rule, the moment we leave the great markets in which staple articles, like wool, cotton, and corn, stocks and bonds, are sold. In cases where we have to do with world-markets, and in the case of articles in these markets which fall into great classes with units susceptible of indefinite division or multiplication, we have something like perfect competition. In other cases, competition as a rule simply sets limits, and within these limits a bargaining process determines price—a higgling process, a bidding and rejecting, an experimentation with offers on either side, bluff and more or less deception, an attempt on the part of each side to read the mind of the other side—all these constitute bargaining, although they may frequently take on various refinements of form in a highly civilized society.

If we take the case of a sale of a horse, or a lot of land, and ask what competition does, we find that it simply sets limits, and frequently very wide limits, within which the buyer and seller must by bargaining come to an agreement in regard to price. In all these cases we have opportunity for variations in price, simply because, mixed up with competition, we have elements persisting which resemble monopoly. After all, when we consider a single individual horse by itself, it has at least slight differences separating it from every other horse, and these slight differences constitute a small quasi-monopoly element. There was only one horse Dexter. Each lot of land has its own peculiarities, however slight, separating it from every other lot of land. Similarly, every manufacturer has exclusive control over his own products, and to the extent that his name and trade-mark are prized he may pursue monopolistic tactics, as does the manufacturer of chocolate mentioned by Professor Walras.

Along with competition, then, there is frequently a residuum of bargaining, with an element of gain to be divided by the bargaining; and the amount of this gain is represented by the distance between the limits to which competition forces buyers on the one side and sellers on the other: an element of gain which Mr. John A. Hobson has designated as "forced gain."* This gives opportunity for price

* In his book, *The Economics of Distribution*.

variations somewhat like those in monopolistic charges, precisely because in their purchases and sales there are elements akin to monopoly. As competition increases, as its work in those pursuits which are competitive in their dominating tendency approaches perfection, the variations in charges from individual to individual and from class to class diminish; whereas, precisely as competition increases in its intensity in competitive pursuits in the United States, we witness an increasing development of price-specialization on the part of monopolists.

Monopoly, then, as we have seen, means variation in price, not only from time to time and from place to place, but even from individual to individual. *Class price*, however, is a better term than individual price, if we have reference to the conditions of modern industrial society; for monopoly price to-day, in the more important cases, means class price. Where there is no pressure brought to bear, the monopolist charges prices which vary from class to class in such a way that he will secure the different social strata as purchasers at the different prices. For the clearer comprehension of the working of a monopoly in the matter of fixing prices, we may derive assistance from the use of various hypothetical cases. Let us for this purpose construct a table showing the number of sales of a monopolized article or service at different prices; the expenses involved in furnishing the supply, it being assumed that each unit involves a

constant expense of eight (8);* and finally the profit remaining to the monopolist:

TABLE I

Price	Number of sales	Gross yield	Expenses per unit	Total expenses	Profits
10	1,000	10,000	8	8,000	2,000
9	2,000	18,000	8	16,000	2,000
8½	5,000	42,500	8	40,000	2,500
7	10,000	70,000	8	80,000	—10,000

If the monopoly price is, let us say, 10, and the number of sales 1000; then, if the expenses are 8 per unit, as indicated in the table, the profits will be 2000. But, according to this table, the monopoly price which yields the highest net returns is 8½, because that yields net returns of 2500; so that if one uniform price is to be charged, it will be 8½.† But

* Here, as elsewhere, we introduce a simplicity rare, indeed, in the world's market, but this simplification renders it far easier to illustrate the principles involved, and for present purposes introduces no error.

† Mr. John A. Hobson, in his discussion of the "Economic Powers of the Trust," in chapter vi. of his work *Evolution of Capitalism*, has fallen into misleading errors of theory. He says very truly that "the interest of a trust . . . lies in fixing supply at the highest net profits. Now the net profits of producing and selling any specified quantity of supply are ascertained by deducting the expenses of production from the aggregate takings" (gross yield). That is precisely what we have done. But immediately afterwards Mr. Hobson says that it is the proportion between "aggregate takings" and expenses which determines monopoly price. Now this is something quite different. Matters are made

the thought occurs to the monopolist, why not retain the sale of these 1000 units at 10, and also the additional 1000 units at 9, while still selling 3000

still worse in his explanation of his diagram of monopoly prices and monopoly expenses, for he there says that "production stops where profit bears the largest proportion to the expenses of production, or, in other words, where the area of absolute takings shows the largest surplus over the area of aggregate expenses." Monopolistic production stops at the point which gives the largest net returns, and net returns increase as long as production yields a surplus over expenses. It is not a question of proportion between profit and expenses, but a question of surplus. Let us, for illustration, assume that expenses are 10 and gross revenues 20. We have a proportion of 1 to 2. Let us now further assume that if production is continued we have expenses amounting to 20, and gross revenues amounting to 35. The result is a proportion of 1 to 1.75 only, but, as the net gain is 15 instead of 10, the larger production is preferable.

Our argument assumes that if capital is borrowed to enlarge a business the interest paid is included in the expense account, and naturally it is advantageous to borrow capital as long as it yields a surplus. So far as fixed and specialized capital is concerned, we need not have regard to that. The monopolist wants as large a return as he can secure from it, but finds any return preferable to none. Similarly we may neglect fixed expenses, as by the very hypothesis they cannot be altered. But all variable expenses must be included under expenses when we determine monopoly price, and, when they are included, monopolistic production continues while a surplus lasts, as in this way the largest net returns are secured.

The further treatment of Mr. Hobson's discussion of monopoly price is deferred to that part of the general work on

additional units at 8½, because in that way there will be a still larger net profit? That is exactly what the monopolist attempts to do; and the reason that this point has been overlooked by American writers on the subject—and also very generally in other countries*—is that, so far as the great monopolists are concerned, an external pressure is brought to bear which secures uniformity at one time and one place. That is the case with street-car service and with the service offered by steam railways, etc. But even in this country there is noticeable a development of classes and facilities for travel designed to secure the purchase of service on the part of the public at variable rates. So it is essential in the development of a theory of monopoly price that it is something which varies not only from time to time and from place to place, but even from class to class. So far as any large number of sales is concerned, the monopolist could hardly treat customers as individuals—that would

The Distribution of Wealth which deals with "The History of the Theory of Monopoly." It should in this place be observed that the author is as far as possible from any desire to detract from Mr. Hobson's merits, which in this connection are especially great, but *errare humanum est*, and Mr. Hobson's mistakes and self-contradictions in the chapter referred to are surprising in so gifted an economist.

* Professor Walras is a notable exception, as his clearness of thought on the subject is admirable, although he has not sufficiently elaborated the point.

not be possible—but he can treat economic classes as economic classes.

Now, according to our table, if we are to have a uniform price, $8\frac{1}{2}$ will be the monopoly price, because it is the point of largest net returns. We may suppose that this is the price on a copyrighted or a patented article. But it is quite possible that under competition $8\frac{1}{2}$ would turn out to be the price which would yield normal returns on the capital and the labor involved. The point to which attention is called is that the monopoly price is not *necessarily* different from the competitive price. It is conceivable that this price of $8\frac{1}{2}$ per unit of service or commodity, which the monopolist charges, because it gives him the highest net returns, is precisely the price which would be brought about by competition. Quite likely the monopolist may have larger profits than those engaged in a competitive business would have. This will be the case if the monopolistic method of doing business is cheaper than the competitive method. It is even conceivable that $8\frac{1}{2}$ may be less than the competitive price. Doubtless that will be the case in some instances. It is quite possible that under the competitive method the expenses may be so great that the necessary-supply price will be higher than the monopoly price. Let us suppose that the expenses are very much greater. Then the necessary-supply price will be higher than $8\frac{1}{2}$, the monopoly price. It is conceivable, again, that the wastes of the competitive method in adver-

tising and in high expenses in bringing the product to the consumer may raise the actual expenses of the producer to 9 per unit, which would make the competitive price necessarily higher than the monopoly price;* but $8\frac{1}{2}$ is the price which yields the largest returns, because the returns of a monopoly are a function of two variables, as we have said—the function of the number of sales and the net profit per unit. Professor Sidgwick says that we may assume generally that in order that a monopoly may be a source of gain, the amount sold within a certain time must be somewhat less than it would be if there were no monopoly. That is not necessarily true. The number of sales may be still greater than would be the case were there no monopoly, because the monopoly price, even when not regulated in any way by legislation, may be less, and under some circumstances will be less, than the competitive price. In general, it is safe to say, on the basis of experience, that monopoly price is higher than the competitive price, but it must be fully understood that this is not necessarily the case. Unquestionably, one of the objects in

* The theory of this work is that in pursuits which belong to the true field of competition, the competitive price will not be *permanently* higher than the necessary-supply price under monopoly, inasmuch as the wastes of the competitive order are off-set by its gains: in other words, the author in this particular adheres to what has been regarded as most fundamental in the theory of the classical English school of economics with respect to competition.

the attempted formation of monopolies is to raise the price; but actual and would-be monopolists almost invariably lay emphasis upon the economies of monopolized production; and they aim to secure these economies, doubtless frequently deceiving even themselves as to what is possible in this direction. These would-be monopolists generally make the claim that they will offer goods or services at the old price, or even at a diminished price, but they do not, generally, live up to what they claim.

While, as a rule, it is probably true that monopoly raises price, any complete theory of monopoly must also contemplate those cases in which the price yielding the highest net returns is positively less than the competitive price—the gains of monopoly coming through the economies of monopolized production. Some of the monopolistic gain doubtless comes in that way, especially in the case of those businesses which we have styled natural monopolies; but ordinarily not all of it, as a rule.*

In close connection with the foregoing, there is something else to be noticed in the matter of monopoly price—that the monopoly price varies with the expense of production and with the taxes on the units of services or commodities; taxes being in-

* The reasons why we may believe that monopoly price is usually higher than competitive price—that is to say, the price yielding normal returns under conditions of competition — are given at greater length in chapter vi. of this work, on pp. 221–225.

cluded here, because they are, from the point of view of the producer, to all intents and purposes, expense. In the case illustrated by our table, we have the price of 8½ yielding the highest net returns if we have a uniform price, the expense of production being 8 per unit. Let us, however, consider what result may be anticipated if the monopolist's expenses of production fall as product increases. We may roughly illustrate this case by a modification of Table I., found on page 115. If we let the expenses per unit fall from 8 to 7, then to 6, and finally to 5, we have this result:

TABLE II

Price	Number of sales	Gross yield	Expenses per unit	Total expenses	Profits
10	1,000	10,000	8	8,000	2,000
9	2,000	18,000	7	14,000	4,000
8½	5,000	42,500	6	30,000	12,500
7	10,000	70,000	5	50,000	20,000

We observe that in the case of falling expenses, as illustrated in this table, the monopoly price is also likely to fall. Provided the fall in expenses is a considerable one, and demand is considerably stimulated by the decrease in price, the intelligent monopolist will reduce prices, and, owing to economic law, will be obliged to allow the public to share in the gains.

To what point will monopoly price fall? It will fall to that point where the reduction in price per unit to secure increased sales, multiplied by the

number of sales, offsets, or more than offsets, the fall in expenses per unit, also multiplied by the number of sales. Let us suppose that in Table II. the price is reduced to 6, and that as a result we have 20,000 sales, but that the expenses per unit fall only to $4\frac{1}{2}$; it being assumed that with a production of 10,000 the greater part of the economies of large-scale production have been secured. The gross yield will be then 120,000, expenses will be 90,000, and profits will be 30,000. Consequently it will be in the interest of the monopolist to reduce price to 6. Let us assume that a fall in prices to 5 again doubles sales, but that expenses per unit fall only to $4\frac{1}{4}$. We will then have a gross yield of 200,000, total expenses of 170,000, and profits of 30,000. It would then be indifferent to the monopolist whether or not he extended production to 40,000 units, provided he regarded profits alone. We may safely assume that as he has no economic motive to enlarge production, he would stop at 30,000. Of course, we do not here consider the prospects of future gain resulting from a still greater traffic, but we have regard only to conditions at the given moment. If we go a step further and suppose that a charge of 4 per unit adds fifty per cent. to sales, and that expenses per unit do not fall, the point of maximum efficiency having been reached, we shall have gross yield of 240,000, expenses 255,000, and therefore a loss of 15,000. Our table would then read as follows:

TABLE III

Price	Number of sales	Gross yield	Expenses per unit	Total expenses	Profits
10	1,000	10,000	8	8,000	2,000
9	2,000	18,000	7	14,000	4,000
8½	5,000	42,500	6	30,000	12,500
7	10,000	70,000	5	50,000	20,000
6	20,000	120,000	4½	90,000	30,000
5	40,000	200,000	4¼	170,000	30,000
4	60,000	240,000	4¼	255,000	—15,000

Price will then fall to 6 and stop there under the assumed hypotheses, which include a choice only among the prices mentioned.

The action of the intelligent monopolist will then vary according to the classes of goods with which he is concerned and with the classes of people which he hopes to reach. According to the law of "marginal utility," consumption of a good stops at that point where the purchasers regard it as just worth while to buy the quantities sold. Values may be high for small quantities and low for large quantities, finally falling to zero, when all wants are satisfied, as value depends on unsatisfied wants. The rapidity with which values fall is regulated by the elasticity of demand in each case. The demand for ordinary articles of food is urgent, but inelastic. If a monopolist had control over the food supply, he would then desire to let people feel hunger, as unsatisfied desires would give a very high price for food. An illustration of the movement of values for ordinary articles of food is

furnished by potatoes. The demand for these is extremely urgent, and in a year of scarcity, owing to the reluctance of the ordinary man to change his habits of consumption, the price may go as high as one dollar a bushel, even in interior towns. When, however, the supply is larger than usual, even by a comparatively small percentage, price falls rapidly, and in cities like Madison, Wisconsin, it is not altogether easy to sell them for twenty-five cents a bushel, while in some country districts it is difficult to find persons who will take them as a gift. When we come to articles of clothing, the demand is far more elastic, and by lowering prices for good clothing large new strata of purchasers can be reached. If a monopoly of this class of goods were possible, the monopolist would be inclined to extend production if he could do so at considerably decreasing expense, whereas a monopolist of articles of food supply would frequently find it to his interest to destroy a portion of the supply, as a destruction of a small percentage of it would enlarge profits enormously.* This line of thought may be extended indefinitely and illustrations multiplied without limit.

It may be true, however, that the monopolist, falling into routine like that which can be observed sometimes where a prosperous monopoly has long

* On this subject the author may refer to his treatment of value in his *Outlines of Economics* (College edition), book ii. part ii. chaps. i. and ii.

existed, may be content with gains already his, and prefer to "let well enough alone" rather than attempt a policy of expansion with lower prices for the prospect of higher gains; for, apart from the effort involved, a new move is always attended with uncertainty in its outcome. But even if the monopolist does reduce prices and build up a large business, he will not usually reduce prices to a point where only competitive gains will be secured, and for this conclusion reasons will be given hereafter.*

It has been assumed in this case that the fall in expenses is considerable. If the fall should be very small—say, a mere fractional part of 1—then the monopolist would find it to his interest simply to pocket the gains.† If from the figures in Table I. we have a reduction of $\frac{1}{10}$ per unit in expenses in each case after the first, we would have this result:

TABLE IV

Price	Number of sales	Gross yield	Expenses per unit	Total expenses	Profits
10	1,000	10,000	8	8,000	2,000
9	2,000	18,000	$7\frac{9}{10}$	15,800	2,200
$8\frac{1}{2}$	5,000	42,500	$7\frac{8}{10}$	39,000	3,500
7	10,000	70,000	$7\frac{7}{10}$	77,000	—7,000

Let us next take an illustration which the writer holds to be typical in manufacture, agriculture, and

* In chap. vi., pp. 221–225.

† Here, as elsewhere, the author assumes that there is choice only among the prices named in the table (I). Such restricted choice is frequent.

commerce. Expenses are assumed to decrease to a point which presents indefinite variety in the rapidity with which it is reached, and then when that point is reached the expenses are assumed to increase.

We add to Table III. two classes of sales, the expense increasing by ¼ per unit for each class, and we have as a result this table:

TABLE V

Price	Number of sales	Gross yield	Expenses per unit	Total expenses	Profits
10	1,000	10,000	8	8,000	2,000
9	2,000	18,000	7	14,000	4,000
8½	5,000	42,500	6	30,000	12,500
7	10,000	70,000	5	50,000	20,000
6	20,000	120,000	4½	90,000	30,000
5	40,000	200,000	4¼	170,000	30,000
4	60,000	240,000	4¼	255,000	—15,000
3½	70,000	245,000	4½	315,000	—70,000
3	80,000	240,000	4¾	380,000	—140,000

It is obvious that the advantages of large-scale production stop at 20,000 units; for beyond that point the advantages of large-scale production are offset or more than offset by the fall in price. If no regard is had for price, a production of 60,000 gives the maximum production which can be had before the turning-point is reached, and expenses per unit begin to rise. Even if the producer could in the last two classes of sales increase his sales without a reduction in price, the result would be the same, for in these cases at a price of 4 we would still have a

loss of 35,000 with a production of 70,000, and a loss of 60,000 with a production of 80,000.

But according to the general law of prices, it requires a fall in prices to increase sales. And price realized is what is decisive in increasing or decreasing returns, so far as the monopolist is concerned. When the individual *entrepreneur* is obliged to lower prices to such an extent that his net money returns begin to fall, he has reached what is for him the point of decreasing returns, even if his expenses are still falling. Production is carried on in present society for money values, and an extension of the market of a producer or dealer into a field which has heretofore belonged to others may involve an unprofitable fall in prices, and thus set a limit to his expansion and afford room for the existence of competitors.* The reasons for the hypothesis that Table V. represents what is typical in agriculture, manufacture, and commerce are given in the following chapters, in which the attempt is made to show that these businesses reach the point of decreasing returns for the *entrepreneur* before the market is supplied, and thus are competitive in their nature, inasmuch as unified action of all producers in any one of these lines is generally difficult, and, indeed, as a rule, impossible; and inasmuch, further,

* This subject is treated in an interesting and original manner by Professor John R. Commons, in his discussion of the laws of increasing and decreasing returns, considered socially and individually, published in his *Distribution of Wealth*, chapter iii, § 1, but especially in chapter iv.

as could such unified action be brought about, it would not, according to our theory, result in a decisive increment in gain. According to what has been shown in our discussion of the causes of monopoly, if the law of increasing returns held these businesses would be monopolistic in character.

Let us next take the case of taxation of monopolized articles and assume a tax of 1 per unit; then the price yielding the highest net returns will no longer be 8½. We must add this expense of 1 per unit on account of taxes, and we then find that manifestly 10 is the price which yields the highest net returns, and, in fact, is the only price which yields any. Our table, therefore, takes the following form:

TABLE VI

Price	Number of sales	Gross yield	Expenses per unit (a tax of one per unit being included)	Total expenses	Profits
10	1,000	10,000	9	9,000	1,000
9	2,000	18,000	9	18,000	0
8½	5,000	42,500	9	45,000	—2,500
7	10,000	70,000	9	90,000	—20,000

When, therefore, the tax on the monopolized production is on the units of service or of commodities, and is high, it is probable that the result will be a higher price and diminished production.

If, however, the tax on each unit is relatively small, the monopolist will frequently be obliged to bear it. The charge paid by the street-car companies of Baltimore for the privilege of using the

streets affords an illustration. It is nine per cent. of the gross revenue, which amounts to a little less than half a cent on each five-cent fare. Now, even if the Baltimore companies were not restricted to five cents by law, it is quite possible that a six-cent fare would cause such a falling off in traffic as to reduce the profits of the business.

It is important to emphasize this, because the statement is frequently made that taxes on monopolies come out of the monopolist, and do not rest on the general public. That is true, if the taxes are fixed and definite sums, or if the taxes are laid upon net revenue. Let us take the cases indicated in Table I., and let us suppose that the tax in each case is just exactly 1000. Then the highest net return would be 1500, and the price of highest net return would be $8\frac{1}{2}$. If we take off from the profits a certain definite sum, we do not change any of the factors which determine price, and the monopolist will therefore gain nothing, but will even lose if he changes his price. The only thing that he can do, then, is to bear the taxation himself. Next suppose—to take the other alternative—that the taxation is in proportion to net returns. Take, for instance, ten per cent. of the net returns, and we shall have a result like that in the case of taxation in definite amounts. We shall have the same price, the same number of sales, the same gross revenue, etc., if we take just a certain percentage and still leave net returns, provided we do not take away such a proportion of the profits

as to stop production; but this we shall sooner or later accomplish if we diminish the advantages of the taxed business to such an extent that those engaged in it will prefer to leave it for other businesses or occupations open to them. So one must be cautious in discussing this subject of the taxation of monopolies. To repeat, if, on the one hand, the tax is one that adds materially to the expense of production per unit of service or commodity, then the producer will probably find it to his advantage to raise the price and to diminish production. It will depend, of course, upon the relation between the amount of the tax and the diminution in production due to the greater price. If the tax is as much as 1 in Table I., the tax according to our assumed hypotheses would, as we have seen, raise prices and diminish production. We can, however, state the principle in more general terms as follows: *If there is a higher price, which with the resulting diminished production will cut off less from profits than the loss which the monopolist would suffer should he assume the tax without a change in price or production, prices will be raised. If, on the other hand, the tax is a fixed sum, or is proportioned to net revenue, then no new factor enters which enables the monopolist to throw a part of the burden upon the public by means of increased price.*

We have in all our tables taken certain hypothetical cases, and used definite numerals. We could, without any alteration in results, construct any

number of similar tables with hypothetical cases. It is also possible to construct similar tables with algebraic symbols, which would give the conclusions a more general and abstract form; or the graphical method could be employed for illustration. The more general and abstract forms of reasoning would, however, give no different results, and would be difficult for non-mathematical readers to follow.*

Professor Sidgwick is much troubled by the case of a monopoly which is confronted by another monopoly, and he says in his treatment of monopoly price that this is beyond the range of economic science. But this is not so. We have already seen that what competition does is simply to set certain limits within which bargaining can take place. Now when we have monopoly against monopoly, we have, of course, no opportunity for competition, and bargaining assumes a large place. That is all. We do not have such narrow limits set to the bargaining as we do in a case where there is competition. But even where there is competition in ordinary dealings, there is room left for bargaining. There is a certain margin between necessary-supply price on either side, but when we have monopoly *versus* monopoly we do not have competition drawing the buyers and sellers together, and there is, therefore,

*It is scarcely necessary to tell the economist that the subject of price is one which receives further treatment in the author's general work on *The Distribution of Wealth.*

frequently a wide range of possible prices. The actual price within this range must be determined wholly by bargaining.*

Another consideration is brought forward by the question, How will monopoly price affect future supplies? It is intimated by Professor Sidgwick that the monopolist looks ahead and asks himself, What will be the effect of bearing down too heavily upon the seller who sells an article of which the monopolist is a purchaser? We are speaking about the buyer as the one having the monopoly. He asks, How will it affect the future supply? Professor Sidgwick applies this to the case of labor, and intimates that the purchaser of labor power, even if he has a monopoly in a large market, will ask himself, What will be the influence upon future labor supply? His implication is that the monopolist will not press down so hardly and heavily upon labor as to cut off future supply. But the evidence afforded by the modern industrial world leads us to believe that ordinarily the monopolist does not look a long way ahead, so far as the purchase of supplies is concerned. Quite generally, the monopolist wishes rather to reap a harvest and retire from the field. Certainly, it seldom happens that any one in the position of a monopolist with respect to the purchase of labor power will look ahead for years and ask, Is

* This subject will be discussed at greater length in that part of the present work on *The Distribution of Wealth* which deals with competition.

not the course I am pursuing likely to diminish the labor supply? We do not find any action on the part of the purchaser of labor power which would indicate that this is the case. Take the example of the sweater and his victims. We do not find that he is held back from exercising his full power over them by the fear that he will cut off the future supply of labor power. He thinks that it will be forthcoming from some source; but even if not, he says, Before the supply dries up I will reap my harvest; I will make my fortune.

There are doubtless some cases in which the monopolist will look measurably ahead. Take the case of a canning-and-packing establishment which stands alone in a country district. That establishment may be the sole purchaser on any large scale, let us say, of tomatoes, accessible to farmers in a wide region of country. Of course the owner of the establishment, if he expects to do business year after year, will not in one year be likely to bear down so heavily as to discourage the farmers altogether. He will hold out the hope that in the future the price of tomatoes will be remunerative. He will, at least, induce them to believe each year that next year the state of the market will be better; and he cannot do this if prices are kept below a certain point which only a knowledge of current conditions can determine.

Another consideration which has to be taken into account in the determination of monopoly price is the influence of surrogates or substitutes. We have

seen that there is a substitute, more or less perfect, for any monopolized article which could be mentioned. That is the case often with respect to books. It may happen sometimes that one must have a certain book—this would be the case with a student in a class where a certain book was prescribed. Often in such cases there is an outside public which has a considerable option. Take the novel, for example; the ordinary purchaser can get along without any one particular novel, and he will frequently purchase something else than the book which is his first choice, if he regards its price as excessive.

The more closely a substitute approaches in its nature a monopolized article or service, the more dangerous it may become to the monopoly. Consequently, we observe a tendency on the part of monopolists to secure ownership, or at least effective control, over those substitutes which are able to render similar services with approximately the same expense, and we have as a result *allied groups of monopolies*. We say allied groups of monopolies because control cannot be secured unless these substitutes lend themselves to monopoly. The telegraph and telephone afford an illustration of allied monopolies. The services which they render are so similar in character that they really may be regarded as parts of one whole, and by united management effective gains are secured; the gains flowing primarily into private pockets, if these industries are privately owned and managed, but inuring to

society at large, provided they are owned and efficiently managed by the public.

Electric lights and gas, both artificial and natural, constitute another allied group of monopolies. The service supplied by kerosene oil is similar, and it is a substitute, but not an effective one, as for many purposes—for example, all public lighting—it renders a service so much inferior. On the other hand, it is much cheaper; and it is not unnatural that the kerosene-oil interests should reach out for control of gas and electricity, exhibiting, in fact, an inclination to secure a monopoly of all illuminants save the sun and moon!

All the most effective means of intramural and suburban transportation constitute an allied group of monopolies. We have here to do with street-cars of all descriptions, elevated and underground railways, steam railways furnishing suburban service, since all these must sooner or later, in the nature of things, fall under unified control. Delays in coming to terms of agreement may temporarily—but only temporarily—prevent this consummation. On the other hand, the service rendered by cabs has been so inferior for most purposes, and also necessarily so much more expensive, that as substitutes they have not been able to influence appreciably, if at all, monopoly price. It is alleged, however, by those who should know, that in one of our greatest cities the street-car interests opposed improved pavements lest cabs and buses should be more generally used. On the other hand, auto-

mobiles evidently have in them the possibilities of a more effective substitute, and it is therefore not surprising to find street-railway interests reaching out for control over transportation by automobiles.

We have also to consider the influence of fashion upon monopoly price. It may dictate the use of a certain monopolized article, and is very tyrannical. There are those who find the higher prices more attractive, but there are others who will be shut off by the higher prices. Habits of consumption will have to be taken into account, because in some cases there is a certain flexibility in consumption. Professor Patten has called attention to considerations of this kind in his discussions of consumption, and for this he deserves praise; but he has exaggerated the power of the consumer to control monopoly price.*

The conclusion which we reach, then, is that monopoly prices are generally higher than competitive prices, and that, as a rule also, monopoly takes a goodly share of the wealth resulting from exceptionally favorable conditions for wealth production, and absorbs a considerable proportion of the increasing wealth of the community; although it is true that where there is flexibility in the habits of

* This, as well as the other parts of Professor Patten's theory of monopolies, the present writer hopes to treat at length in that part of this work dealing with the "History of the Theory of Monopoly."

the people the power of the monopolist will be restricted thereby, but only to a limited extent.

We see in monopoly, then, one of the chief reasons for the vast concentrated wealth in this country. The reader will recall the author's law of monopoly charges—that the monopoly price is influenced by the general level of well-being and by the readiness with which people spend money. The higher the general average of well-being, and the more readily they spend money, the higher will be that price which will yield the largest net returns. We have these conditions meeting in the United States. We have a high average of well-being and a great readiness in the expenditure of money, and consequently we have a high monopoly price. So, to borrow the language of our tables, if in Germany the price would be 8½, in this country it would very likely be 10.

Let us suppose that prices charged for monopolized services or commodities fall in one way or another—that, for example, they are reduced by legislative enactment, as street-car fares may be—what will be the result? It will largely depend upon how generally monopoly prices fall. If some monopoly prices fall and others do not, there is at least a chance—indeed, a strong probability—that part of the gain will be absorbed by other monopolies, or by rent, which we do not call a monopolistic gain. Let us suppose, for example, that street-car fares are reduced in cities generally by means of legislative enactment. Now, if the legislature stops at

that point, there is danger that a part of this gain will be absorbed by rent-receivers, that rents may go up to correspond with the fall in the price of transportation in the city. Henry George at times said that this would be the sole result. This cannot be true, however, because if the price of urban and suburban transportation falls, of course the amount of available land supply is increased, and rents tend to fall in that way. But doubtless a portion of it would be absorbed by rent or by other monopolies.

But if the price of monopolized services and commodities in general falls, what would then be the result? One result might be a higher standard of life; another might be a larger population. If, as one result of a fall in the price of monopolized articles, there were earlier marriages and larger families, then a part of the gain would be eaten up by the surplus of population, and a part by rent-receivers, on account of the increased demand for land. But it is quite possible that people might raise their standard of life, and raise it permanently, in which case the gain would be absorbed in that desirable way.

It is one of the offices of taxation to secure part of the gains of monopolized production for those higher purposes which are calculated to raise the standard of life. If part of the gains of monopolized production is taken by taxation, it may be used to minister to the higher wants, and this action by government will result in a higher standard

of living and not in a larger population. For example, it may be used for educational purposes of all sorts.

One other question presents itself in this connection—or two, perhaps. The first concerns personal gains. We ought not to call personal gains monopoly gains, as they are different in so many particulars from those which result from social opportunities of a monopolistic nature, and they do not give a monopoly according to our definition. At the most, and only in rare instances, can we call them quasi-monopolistic gains.

Another question is, Where do we discover monopoly gains in bookkeeping? Monopoly gains are a large item in wealth distribution, and yet when we look over railway accounts and private books we find no place where monopoly gains appear. They are carefully covered up, so far as may be, and that is done consciously and purposely by the managers of monopolies. Royalties explain a part of monopoly gains. Occasionally, they are reflected in high price of stock, but there is an attempt to do away with this, as it is a crude and primitive way to absorb monopoly gains, and the modern capitalist does not want monopoly gains to be thus reflected. He prefers to water stock, and he will do that whenever there is an opportunity, adding an amount of stock, so that what was originally a one-hundred-dollar investment may appear to be a four-hundred-dollar or five-hundred-dollar one, and the returns may thus appear to be no higher than the returns on capital

invested in competitive enterprises. Stock-watering—in this country, at any rate—is one of the chief methods of absorbing monopoly gains. High salaries may also eat up part of the monopoly gains.

It is well understood that in some businesses, and especially in the case of railways, the only real investment is that which is covered by the bonds. Stocks in such cases represent surplus. It is hoped that they will be of some value on account of the surplus value of monopolized gains, but, as a rule, they do not represent any real investment. This is admitted by those interested in the business. Any man going into the street-car business in this country to-day would not expect that the stock should represent any real investment. In fact, one who should propose to go into the business and pay for the construction of street-car lines by stock investment would be called very foolish and unbusiness-like. The point is, that through various methods, especially through stock-watering, through salaries, through royalties, sometimes through high prices paid for purchases of commodities or land, under some term or another, the gains of monopoly are mostly covered up.

CHAPTER IV

THE LIMITS OF MONOPOLY AND THE PERMANENCY OF COMPETITION

IT is a rather strange phenomenon that progress should result in the establishment of monopolies. It is a mistake to think that monopolies did not exist in earlier times. They did, and the desire for monopoly is about as old as the human race. It could not be described better than it is in Isaiah v. 8: "Woe unto them that join house to house, that lay field to field, till there be no place, that they may be placed alone in the midst of the earth!" But the possibilities of monopoly in early times were much less. Monopoly existed locally and on a much smaller scale, was often due to legal action, and did not frequently spring up spontaneously out of properties inherent in business. The truth is, that since the industrial revolution the increased industrial field is largely a non-competitive one. But there is a critical question which still confronts us. We have admitted that a certain large portion of the industrial field is a monopoly field. The question still confronts us: *Is competition self-annihilating?* Is it self-annihilating through the entire in-

dustrial field? Here is the point at which the socialist separates from the non-socialist. It is the assumption of the socialist that in this respect there is no inherent difference between businesses ordinarily designated as natural monopolies and other businesses. They say simply that some lines develop more rapidly than others, and that some exhibit sooner than others the monopolistic character. If this be true, we must have a reconstruction of our industrial order. And to admit this is, so far as the present writer can see, to admit the claims of socialism.* But he does not believe that we must admit this. This is the reason why he is not a socialist. He holds, on the contrary, that, so far as we can now see, we have superadded to the old competitive field a new noncompetitive field; that agriculture, manufactures, and commerce are still competitive in their nature, and that where monopolistic tendencies exist in any of these lines of business, especially in manufactures, we may find an explanation which does not necessitate the admission that these businesses are monopolies in their very nature.

It is true, as Professor Adolph Wagner says, that manufacturing producers may prefer an agreement to competition; but to prefer an agreement is one thing—to effect an agreement, real and vital and

* Since this was written the author has been glad to see that M. de Rousiers takes the same position in his work *Les Industries Monopolisées aux États-Unis*.

lasting, is a quite different thing.* A committee of Congress reports that "combination grows out of, and is the natural development of, competition, and that in many cases it is the only means left to the competitors to escape absolute ruin."† Is that true? It remains to be seen. There is no doubt that we have had pools and trusts, and that, since these are now becoming obsolete, another form has succeeded them. We now have combinations of corporations into new corporations. About this there is no doubt. But several things to which attention has already been called must be considered before we take up our main question regarding the self-annihilation of competition. One is that business on a large

* An illustration is afforded by the retail book trade, which generally, in the cities of the civilized world, allows a discount of some 20 per cent. from the list price of books. The author remembers that for some twenty-five years—and doubtless the movement goes back further than that—there have been more or less persistent and determined efforts to effect an agreement which should result in abolishing this discount. These efforts have thus far been only partially successful, although even from the stand-point of the purchasing public, something can be said for the movement, as a more generous profit would make possible a higher grade of bookshops, especially in our smaller cities. The author recalls a very determined effort some twenty years ago to abolish the discount in question in the city of Berlin. It included an attempt to cut off supplies from the principal offending firm; but it all came to nothing.

† Quoted by Professor Alfred Marshall in his address on *Some Aspects of Competition*, p. 15.

scale, or concentration of business, and monopoly are two different things. Monopoly means something more than business on a large scale. But how, then, shall we explain some of these large-scale businesses—manufacturing businesses—which are likewise monopolies? How can we reconcile our theory of competition with facts?

It has been suggested by the author that the union of an ordinary business with a natural monopoly may explain a monopoly when it is found outside of the monopoly field. If a manufacturing business is favored by the railways, it may become a monopoly, not through inherent forces tending towards monopoly, but through the favor of the monopolistic railway. Tariffs may explain, or help to explain, a few of these monopolies. Geographical concentration of natural riches may explain some. Thus what we have already admitted with respect to monopolies explains at least a goodly proportion of the monopolies in the field of manufacturing.

We can find an explanation of the observed tendency of the cattle business towards monopoly without being obliged to admit that there is anything in the nature of the cattle business which would make it a monopoly. We can find an explanation of the sugar trust which does not necessitate the admission that it is in its nature a monopoly. There is nothing in the refining of oil which necessitates the admission that that business has an inherent tendency to monopoly.

The author has a gifted friend, an engineer and inventor, who once, while a member of one of his classes at Chautauqua, became interested in the discussion of monopolies and trusts, and took issue with him concerning his classification of businesses into those naturally monopolistic and those naturally competitive. This friend wrote the author several letters, of which three are quoted, inasmuch as they present admirably, and with all the freedom of friendly correspondence, the arguments in favor of the position that in all businesses there is an inherent tendency towards concentration and centralization which will not stop short of monopoly. The letters read as follows:*

"*June* 7, 1892.

"DEAR PROFESSOR ELY,—When we were in Chautauqua we had a little discussion on the subject of monopolies. I thought that back of and beyond all special tendencies, (as in the case of natural or artificial monopolies), there was in every modern industry an innate tendency to consolidation. All that I have since seen

* These letters have not been revised, but are printed exactly as the author's friend, without a thought of publication, wrote them. Doubtless for publication the writer of them would wish to elaborate many points, but for present purposes the statement, it will generally be admitted, is excellent. The readers of this book will join with the author in the hope that his correspondent may sometime offer over his own name an elaboration of his position, to the effect that both physical laws and psychical laws favor production on a constantly and indefinitely increasing scale.

or read has strengthened this opinion, and as I am now able to put my reasons therefor in more definite shape, I thought I would write to you upon the subject.

"My theorem is that, in the present advanced state of civilization, large capital, intelligently applied, tends to make every industry a monopoly.

"In the first place, as you have well said, the real reason that men form monopolies is that they can make more money in that way than by competing with each other. If they can make more money by a monopoly, then monopoly is inevitable. My task is therefore tantamount to proving that, in the most advanced stage of civilization, all industries whatsoever are becoming industries of increasing returns. We are only beginning to enter on this stage in America, and not all of our industries have reached it as yet; but I maintain that all will do so ultimately, unless preventive forces unknown at present should arise.

"Let us now analyze the specific forces that give a business with large capital a decided advantage over small producers. They are:

"1. The almost universal law in business that the greater the amount of goods purchased, the cheaper the price per piece. This at once places the small producer at a decided disadvantage, since his large rival can procure all his raw material and supplies at a much cheaper rate, and can therefore undersell him without loss. One of the principal advantages the large manufacturer gains in this way is cheaper freight rates. This advantage has frequently been abnormally increased by unfair discrimination on the part of private owners of natural monopolies; but even with government ownership of railways the advantage would remain, unless

the government were to charge the same rates on a few pounds as on a train-load.

"2. As the amount of business increases, the fixed charges become a decreasing percentage of the cost. This is peculiarly the case with the cost of the talent necessary for superintendence, engineering, etc. A large corporation can afford to hire the best talent.

"3. A rich company can invest enough capital to secure the maximum efficiency of plant. With the progress of invention and the increasing use of expensive machinery, the amount of capital necessary to secure this maximum efficiency constantly increases.

"4. Having enough capital of its own, a rich company is not compelled to do business on borrowed capital. In times of panic this is a great advantage. A rich company is not obliged to do business from hand to mouth. It possesses great staying power, and can wait for a favorable market before buying or selling.

"5. Large capital can at times 'corner' the market. This is a very risky business when production can be quickly increased in answer to the higher price. But there is a class of commodities the demand for which comes from highly civilized, growing communities, and the supply of which is either limited by nature or is in the hands of primitive peoples who use antiquated and wasteful methods of production. The price of these commodities is surely rising, and, with adequate capital, a corner may be secured by long contracts with producers and safely held. To this class belong: India-rubber, gutta-percha, boxwood, ivory, whalebone, platinum and other rare minerals, and all products of animals or plants which are threatened with extinction. There is already a purchasing trust or pool which con-

trols the rubber trade at Para in Brazil. I do not know whether there is a platinum trust as yet, but the price has risen rapidly recently. The price of whalebone has risen from fifty cents per pound some years ago to six dollars a pound at the present time.

"Another species of corner arises from patent monopolies. It is obvious that large capital can afford to pay the highest prices for valuable patents. Also in the case of men whose talents are unique, the large capital can pay the highest salaries.

"Where there is strong competition, the above-mentioned forces invariably drive out the small producers. We must next examine those forces which favor the monopolies after they are formed, thereby offering a constant temptation to the formation of new monopolies, as well as strengthening those already in existence.

"6. Monopolies can save many wastes arising from competition:

"(*a*) The unnecessary duplication of plants, stocks of goods, retail agencies, etc., is avoided.

"(*b*) They no longer require a large army of competing commercial travellers.

"(*c*) The large expense for competitive advertising is saved.

"(*d*) They do not have to give away presents with their goods in order to sell them. The American Tobacco Company (cigarette trust) claim to have saved $250,000 a year since their consolidation through not being compelled to give away cigarette pictures.

"(*e*) When there is strong competition there is always a temptation to give credit to unsound purchasers, with consequent loss. Monopolies can do a cash business.

"7. When several firms owning different patents on

the same kinds of machines consolidate, all the improvements can be combined in one fine machine, to the great advantage of all concerned, the public included.

"8. When an almost complete monopoly is attained, production can be closely adjusted to probable consumption. Greater steadiness in production follows with consequent saving.

"9. When a monopoly is the principal consumer of those articles which constitute its own raw materials, it can exert a powerful influence in depressing their price.

"10. Finally, a great reason for consolidation is the ability it gives to a monopoly to charge high prices. When fierce competition has forced prices below the actual cost of production, the temptation to form a pool or a trust becomes very strong indeed.

"These ten forces taken together constitute an irresistible power making for consolidation. But their effect is not instantaneous. The modern trusts, like all other economic institutions, are the product of a gradual evolution. There still exist powerful forces tending to retard their formation. Let us examine the strength of the retarding forces. They are:

"1. Economic friction and the natural inertia of large masses of men due to previous habits and customs.

"2. The trust is a very recent development, and most business men do not yet understand its advantages.

"3. Personal business pride. Many men would rather remain at the head of their own business than surrender it to a trust, even if by so doing they could make more money. But frequently, when the competition gets fiercer, the superior strength of the trust conquers, and even they are compelled to join it or go out of business.

"4. Personal distrust of each other by business rivals. A trust cannot usually succeed unless it has the consent of the majority of men in that business. Frequently this cannot be obtained and the trust fails.

"5. The failure of trusts organized on wrong principles. This deters others from forming trusts for a time. Trusts are sometimes organized for the express purpose of cheating the stockholders, just as some railroads have been. Sometimes the men organizing trusts are over-sanguine, and in buying out rivals pay excessive prices for their works. Afterwards they are unable to make the business pay on the inflated capitalization. Sometimes it is attempted to organize a trust with insufficient capital, or without the assistance of the most powerful firms in the business. These attempts necessarily fail.

"6. It is sometimes said that these immense corporations are unwieldy. When properly and honestly organized and managed, there is no more reason why a large industrial corporation should be unwieldy than a large railroad corporation. The promptness and strength with which every genuine trust takes care of its own interests ought to convince anybody of this.

"The ultimate consolidation, despite these retarding forces, is clearly shown in the evolution of modern industrial organizations. We may divide their history into six stages, always remembering that, as some industries progress more rapidly than others, it is possible to have all six stages existing simultaneously in the same community.

"In the first stage we have a large number of small producers competing with each other. Such was the case with most industries the world over a hundred

years ago. It is still largely the condition of agricultural production at the present time. A good example of this stage was the old village butcher.

"In the second stage more capital is required by each industry. We find production on a large scale in factories. The number of producers has decreased, but the product has vastly increased. Competition is stronger, each firm competing in a wider market. A good example of this stage is a well-equipped small slaughter-house.

"In the third stage the field is in possession of perhaps less than a dozen huge firms. Competition is so fierce that it becomes an industrial war. Each firm competes with all the rest everywhere, and prices are ruinously low. In these vast establishments production is enormously increased. Over-production is the constant cry. Armour's huge slaughter-house in Chicago some years ago would be an example of this stage.

"Then slowly, in the fourth stage, it begins to dawn upon the manufacturers that they are losing money by competing—that 'in union there is strength.' The first attempt at union is generally a pool, by which term I mean an agreement to raise prices, restrict production and apportion it among the various members of the pool. A pool is generally a condition of unstable equilibrium for three reasons:

"(*a*) In the first place, as each member still retains the control of his own business, he is interested in selling as much as possible. There is thus a constant temptation secretly to cut pool prices in order that he may sell more than his just quota. Each member also thinks that he ought to have a larger quota. Thus nearly every meeting is filled with accusations and

wranglings which frequently cause the disruption of the pool.

"(*b*) Production not being under one management, pools do not get the benefit of the economies due to consolidation. The advantage of a pool is therefore not in cheapened production, but in the fact that, by uniting, the manufacturers have created a 'corner' in their goods. As in the case of any other 'corner,' this stimulates outside production, which soon proves a formidable competitor.

"(*c*) The raising of prices by pools causes a great outcry. Legislatures hasten to pass anti-trust laws, which are really anti-pool laws; and the pool's troubles thicken.* But I think these laws, while usually a dead letter, in those few cases where they are enforced, tend rather to aggravate the evil they were intended to prevent. They break up the weak and unstable pool; in the presence of the common enemy, the members forget their personal jealousies. Thus a genuine trust is formed, a regular corporation which buys the various works outright. I do not see how the true trust can be touched by legislation without violating all the laws of private property in the means of production, as at present understood.

"The distinguishing characteristic of this fifth stage, that of the trust, is the large profits due to productive consolidation, enumerated above. The genuine trust, when once properly and firmly established, is, to my mind, invincible, so far as the present state of society is concerned. The trust can sell at monopoly prices, and

* It must be remembered that this letter was written in June, 1892.

if these are high enough to invite competition its facilities for cheaper production ultimately give it the victory. The public has, in the long run, to pay for the superfluous competing plant, as in the case of competing railroads.

"The sixth stage is when the original promoters, having made fortunes out of the trusts, water the stock or sell it at a high price, where it yields only current interest. It then goes on the market like any other stock, and is purchased by ordinary conservative investors. After this its quiet history resembles that of a great railroad.

"The so-called 'Big Four Cattle Combine' in Chicago passed through these last three stages. Mr. Armour united with the other three to form a pool which was so strong and included so many productive features that it was virtually a trust. The last part of the history I am not so sure of, but in so far as I can trust what information I have, it is as follows: When the recent Illinois anti-trust law was passed, the pool was changed to a trust, and its stock is now sold on the New York Stock Exchange as the W. V. Beef Co.

"I have taken the business of slaughtering cattle for an example, because, among many other available trusts, it was singularly free from the influence of natural or artificial monopolies. The business of slaughtering cattle is not a patent monopoly. The cattle trade in America does not depend on the tariff, neither are there any internal revenue taxes on it. I do not think the Company has received any special help from the railroads, any more than the usual advantages a large shipper has over a small one. This monopoly grew up at the very centre of the fiercest cattle competition in the world, through the operation of natural forces.

"It is obvious that the formation of monopolies will

follow the line of least resistance; that if men can secure the aid of artificial or natural monopolies in certain industries, those industries will be generally the first to be consolidated. In fact it follows, if the above theory is correct, that the difference between natural monopolies and other industries is largely an historical one, depending upon the stage of development reached; the natural monopolies being the first to be consolidated. I realize, of course, that there are certain characteristics peculiar to natural monopolies. The vital resemblance lies in the fact that in both cases the owners can make more money by consolidation than by competition. The last industries to be consolidated will probably be those industries which at present are in the earlier stages of development. This brings us to agriculture. Undoubtedly at the present time agriculture is mainly in the first stage; but with the progress of invention it takes on more and more the characteristics of manufacturing. (For a very good description of this resemblance of agriculture to manufacturing, see *Encyclopædia Britannica*, art. "Agriculture," page 411; the advantages of large capital and consolidation of productive forces are pointed out.) In the one matter of fertilizers alone, the largest purchaser secures the cheapest prices—and so on. The advance waves of consolidation have already reached agriculture; the raising of cattle, the making of butter and cheese, the production of milk (about New York and St. Louis), and the raising of prunes in California have all experienced partial consolidation. And lastly, in California, where the most modern methods of American agriculture prevail, it is said (*Recent Economic Changes*, by D. A. Wells, p. 99), that the cost of raising wheat is as follows:

"On ranches of 1000 acres, 92.5 cents per 100 lbs.

"On ranches of 50,000 acres, 40 cents per 100 lbs.

"If this report be correct, agriculture, in California at least, is already a business of increasing returns.

"Let us now put the theory to the test of experiment. Is there a widespread tendency to consolidation in modern industry, independent of the characteristics of any particular industry? We will let the facts speak for themselves."

Here the writer of this letter gives a list of fifty-two "trusts" in the United States, controlling as many different industries, and having an aggregate capital of $500,000,000.

"We are only beginning to enter on the era of trusts. Eighty-two per cent. of the trusts in the above list have been formed since 1888. The list already shows how widely diffused the trusts are. We have the protected sugar trust in America, and the salt trust in free-trade England. We have the whiskey trust aided by internal-revenue taxes, and the cotton-seed-oil trust free from such influences. We have the Standard Oil Trust aided by the railroads, and the celluloid trust where freight rates are unimportant. We have the gas-fixture trust built on present patents, and the English Chemical Union using Le Blanc's old soda process patented at the time of the French Revolution.

"Back of all the surface phenomena in individual cases, there is a great undercurrent driving all modern industries, some slowly, some more rapidly, to become monopolies.

"Signed ———"

"*July* 16, 1892.

"DEAR PROFESSOR,—Since writing to you about the trusts, I have discovered a number of new ones. I would like to add them as an appendix to my letter. The tariff controversy has brought to light a large number. The New York *World* has published a list of 'One Hundred Tariff Trusts.' A number of these are pools and a number are already down in my first list; the rest I have entered in the appended list.

"As I believe that trusts are a natural stage in the evolution of industry, I cannot agree with the *World* in holding the tariff wholly responsible for their formation. No one, however, who has noticed the perfect wave of trust formation that followed the passage of the McKinley bill * can deny that it powerfully accelerated their formation. The *experimentum crucis*, of course, is the considerable number of English trusts. I confidently expect that in self-defence the *Tribune* will have to publish a list of 'Trusts in Free-Trade England.'

"I note that the wall-paper trust claims to have saved $500,000 a year by dispensing with 300 competing drummers after the consolidation.

"A new cigarette company, the National Cigarette and Tobacco Company, has been formed with $2,500,000 capital to 'compete' with the American Tobacco Company monopoly—another case of West Shore, probably.

"I enclose the advertisement of the Michigan Peninsular Car Company, as it is typical of the mode of organization of the modern trust.

"Signed, ——"

* The writer, of course, refers to the first McKinley bill, surperseded by the so-called Wilson tariff law.

In the additional lists sent in this letter and in a subsequent one, our correspondent names forty-one "trusts" not cited in his earlier list.

"*November* 16, 1895.

"DEAR PROFESSOR,—There are some other points in connection with trusts that have occurred to me since my former letters; namely, in connection with Professor H. C. Adams's 'Industries of the First Class.' (*Relation of the State to Industrial Action*, p. 55.) A portion of that class, manufacturing establishments, is covered by my former letters, but in the other portion, the retail trade, we encounter a force very different from the former almost purely physical forces. This new force is the free will or personal taste of the ultimate individual consumer.

"A retail dealer must, within very narrow limits, have what a customer wants. A certain amount of bull-dozing a customer will submit to, but if a man wants a toothbrush you cannot sell him a hairbrush as 'just as good.' The success of a retail business depends almost entirely on the ability of the management to gauge accurately the probable demand in quality and in quantity.

"As to the quality of the demand. Past demands are known to all. With future demands, that delicate perception of what will prove popular, depends on the brain of the buyer for the firm. Now that brain power is essentially in the nature of a fixed charge. One man can as easily select the pattern for 1000 yards of silk as for 10 yards. To be on the same footing as regards quality, a small establishment must pay as high a salary, and distribute it over a smaller quantity of goods. Another

factor of quality is the variety offered. Other things being equal, the customer will save his own time by going to the store where he has the largest variety to choose from. This, of course, favors the large store, which has a great variety all in one place. There are many people out West who buy nearly everything they need from Montgomery Ward & Co., of Chicago, largely because they have a large stock of nearly everything in one single catalogue.

"As to the quantity of the demand. There is, in the first place, in every total demand a certain regular undercurrent depending on times and seasons. Thus there are regularly more heavy overcoats sold in the fall than in the spring; more water drawn off on Monday than on Sunday. In the second place, all demands are more or less ephemeral. Fashions change and qualities improve. For any single concrete article there is usually a birth, a growth, a 'craze,' a decline, and a death. These two factors can be met by a steady current of supply, which is completely used up every day, the goods touching the shelves in transit only. The successful prediction of their amount depends on the brains of the management (*vide supra*).

"Superimposed on these two steady factors is an almost purely chance variation or caprice in the demand. One day many hairbrushes are called for, the next many toothbrushes, the third day neither. It will not do for a dealer to be always 'just out' of the particular thing the customer wants when he chooses to call. He must have a stock on hand adjusted to the probable amount of this variation in the demand. But are we not utterly ignorant of the probable amount of a purely chance variation? In a single case, yes; in the mass,

no. The mathematical theory of probability teaches that the larger the number of individual variations around an underlying mean, the greater the tendency of these variations to give a steady value of that mean. Those running over tend more and more to balance those running under; and, according to the theory, the mean of a number of variations differs from the true underlying mean by a quantity varying inversely as the square root of the total number of variations.* Our underlying mean is the steady ground-swell above mentioned. The probable deviation of the transient daily mean from this must be provided for by the reserve stock on hand. Thus a given dealer requires a certain reserve stock; another dealer selling on an average 64 times as many of the same articles in a day required a stock $\sqrt{64}$, that is, 8 times as large, but the interest and other expenses on this stock are distributed over a quantity of sales 64 times as large, so that the stock charge on a single article is only $\frac{1}{8}$ as much. This gives a great advantage to the larger firm. Or, to put it in another way: had there been 64 separate dealers, they each would have required a stock of 1, or a total of 64; by consolidating they would only need a total stock of 8,

"* See Merriman, *Text-Book of Least Squares*, p. 89, or any other work on the subject. The probable error of a single observation (variation) is: $0.6745\sqrt{\frac{\Sigma v^2}{n-1}}$; the probable error of the mean of the n observations is: $0.6745\sqrt{\frac{\Sigma v^2}{n(n-1)}}$; the ratio of these is: $\dfrac{0.6745\sqrt{\frac{\Sigma v^2}{n(n-1)}}}{0.6745\sqrt{\frac{\Sigma v^2}{n-1}}}=\frac{1}{\sqrt{n}}$."

and could invest the capital represented by the remaining 56 in some other way. There is an unconscious acknowledgment of this force in the tendency of all the stores selling a certain class of goods to congregate in one 'district' in a city. Each one hopes to catch the customer his rival cannot at the moment supply.

"These forces, favoring the larger firm, make for consolidation in the retail trade, and will in the long run carry this form of industry the way of all others. There are already vast aggregations in the retail trade in every great city, and, if one were to ask any small retail dealer, almost anywhere, what he most feared, he would answer—'The big stores.'

"Signed, ——"

It is interesting to examine the claims made by those who organize industrial combinations of the sort popularly called trusts when they present their projects to the general public, and more especially to that portion of the general public comprising investors, and to compare these claims with the advantages of the trust as enumerated by the author's friend. The author has examined their claims, both in the advertising columns of newspapers and in the circulars sent out by their agents in solicitation of subscription for stocks and bonds. It is plain from such a comparison that the hopes of those entering these combinations and putting their money into them are well described in these letters. The author has before him as he writes a large number of circulars and newspaper advertisements which afford abundant illustration. An advertisement of

preferred stock of the American Type Founders' Company is a good example, and from it a few quotations will be made.

First of all, it is to be noticed that the twenty-three companies and firms in the combination are enumerated, and that according to the "Vendor's Statement" these companies and firms "manufacture and sell about eighty-five per cent. of the entire output of type in the United States." After observing that tariff changes cannot affect the business unfavorably on account of the export business in American type, due to its superiority, it is claimed that the "excessive expenses" of the past will be reduced and cutting in prices will be stopped. Concentration will save, it is said, "expenses and rent of a large number of duplicate branch offices," and will practically abolish "commissions to middlemen." A very large saving will be effected, it is claimed, in "specimen books" which each foundry has heretofore issued, "costing one foundry over twenty thousand dollars for a single issue." A large saving is also promised in the expense of producing new designs, which with competing companies involves a duplication of plant "at great expense."

If we should go through the entire collection of advertisements and circulars, we would find these same points brought forward again and again in a variety of forms, but we would come upon scarcely a point not brought out already. The schedule of questions prepared by Professor J. W. Jenks for

the use of the Industrial Commission of the United States in its investigation of "Industrial Combinations" also brings forward these same points.

Let us now take up those causes which, it is claimed, are operating to monopolize every kind of business, and examine them one by one, first reminding the reader once more that large-scale production is a thing which by no means necessarily signifies monopolized production. But before we continue the discussion, the writer wishes to disclaim any desire to take the part of advocate for either the one side or the other in this controversy. His desire is to investigate scientifically the forces which give shape to industrial society, and he admits frankly that we do not now have the data which would enable us to reach mathematical certainty either deductively or inductively. He seeks to interpret according to his light the data now available.

To pass on, then, to a consideration of the arguments presented by the author's friend, it is said that large producers enjoy an advantage in making purchases, and especially in the purchase of railway service in the transportation of freight. Will this stand the test of critical examination as a cause producing monopoly? Every day the careful observer may witness the shrewd man making small purchases at a low rate which could with difficulty be duplicated on a large scale. "Bargains" may be "picked up" in a small way as well as in a large way. Again, if one wishes to purchase on a large

scale, one must be careful lest the demand raise price; and frequently those who wish to make vast purchases divide up their orders, lest they suffer serious disadvantage from the very magnitude of their operations. This is more marked in the case of some valuable things, naturally, than in the case of others. Real estate would furnish the most marked illustration, for it is a well-known fact that considerable purchases within a restricted area raise prices greatly. The purchase of fifty lots in a city of ten thousand inhabitants, if the purchaser were imprudent in his methods, would raise prices by a very appreciable percentage. It is also true that a large demand for horses on the part of one person can with difficulty be satisfied by purchases in one place without an increase in price. Illustration could be continued indefinitely; and the cases in which a large purchaser is at a disadvantage can be frequently seen by any keen observer.

The writer of the letters evidently had in mind the merchant who places large orders with the manufacturer—buying, for example, the entire output of the latter for a number of years. There is no doubt that the result would be a concession in prices; and there are many cases in which the purchaser of large quantities of commodities has a marked advantage. Normally, however, this has its limits. One reaches sooner or later the point of maximum effectiveness, and beyond this there would be no advantage in going. Another, purchasing in equally large quantities, would have as

great an advantage; and, unless aided by some external forces, such as control over transportation agencies, it would be ruinous for one person to attempt to purchase the entire supply of any important commodity. When a daring Chicago operator a short time since attempted to secure, through large purchases, the control of the world's supply of wheat, the result was higher and higher prices, and finally his ruin.

Freight rates play an important rôle in business, and in many lines they enter into expenses to so large an extent that manufacturers and merchants favored appreciably are able to drive out of business those who are not favored. That is fully conceded. It is maintained, however, that there is a limit to the reduction in freight rates which a railway can profitably make to secure large shipments from a single person. It is generally conceded that a railway may with propriety charge relatively less for "car-load lots" than for a few pounds, but it is questioned whether a railway may go further than this. At any rate, in this case we again, sooner or later, find a point where there are no further advantages to be gained in freight rates, if a railway is honestly managed; and the tendency in the case of government railways, and also in the case of private railways under public control—provided they obey the laws—is to reach this point with comparatively small shipments. Here again, then, critical analysis fails to discern a cause inevitably operating to produce monopoly.

It is said in the letter that the fixed charges decrease relatively as the magnitude of the business increases. We admit that in the case of natural monopolies belonging to Class II.—those which arise out of properties inherent in the business—this is true to an extraordinary extent, and is one of the causes operating to produce monopoly. Railways are an illustration. It is true that in a manufacturing business there are at a given point in its growth certain charges which are relatively stable, and which may be designated as fixed charges. A superintendent is employed, and if the business is on a large scale the portion of the salary which will inhere in the expenses of the production of each article will be relatively small. There must be a certain plant. If this is not fully utilized, then that part of the cost of the plant which must be assessed upon each unit of service or commodity will decrease as production increases until the plant is fully employed.

All this is freely admitted, but it is claimed in reply that it does not prove that we have here to do with a cause of monopoly. A point of maximum efficiency is sooner or later reached, and new fixed charges emerge as business grows. A superintendent who can be had for fifteen hundred dollars a year has to give way to one who can command ten thousand dollars, fifteen thousand dollars, or even more. The bookkeeping has finally to be reorganized and made more expensive; new buildings must be constructed; expenses of an entirely

new sort appear. A large item in the expense account of many huge establishments consists in an outlay to prevent being cheated and robbed, or to keep in order immense forces of employés. Thus, in the case of some vast businesses, we hear a great deal about the employment of "spotters" and private detectives.

In the third place, the author would freely grant the claim of his correspondent that a large company may have a plant of maximum efficiency; but, surely, so may another large company.

A rich company does not have to borrow capital, but we may have several rich companies which do not have to borrow capital. Moreover, a resort to credit, if it is prudent, will frequently increase gains in spite of the danger of crises. Many a small producer went through the crisis of 1893 in perfect safety; many a large company became bankrupt.

Large capital, it is urged, can corner the market; this is a point to be proved. Patents are admitted by the author to be monopolies, and in some instances causes of other monopolies. It depends upon the significance of the patent in a particular business. Frequently a patent owned by one manufacturer may be offset by a patent owned by another. Really unique talent in business is denied; there may be rare talent.

In so far as that portion of the industrial field is concerned which lies outside of our admitted field of monopoly, we do not admit, then, that the five

causes enumerated tend to produce anything more than many instances of business on a large scale.

We next have an enumeration in the letter of the advantages of monopoly when once it has been secured. We might reply that we have nothing to do with these unless causes first operate to produce monopoly. Some of the advantages of monopoly have to be admitted as peculiar, and are not found in competitive businesses even when they are conducted on a vast scale. Commercial travellers may be dispensed with, advertising expenses may be reduced, presents to attract customers may be abolished, and a needless duplication of plant may be avoided. In other words, we have, in the case of monopolies, an abolition of the wastes of the competitive system. But likewise we have an abolition of its advantages. When once monopoly is secure, it is likely to become listless, non-inventive, content to follow in the old ways, indifferent to small economies; in short, it is held by non-socialists that, both from the individual point of view and from the social point of view, the gains of competition outweigh its admitted losses; and that, consequently, if for a time monopoly could be secured in the manufacture of some one article, or class of articles, competition would inevitably spring up and new producers would hold their own in the field of production.*

*It is strange that some conservative economists apparently fail to see that what they concede to the advocates

We next turn our attention to lists of "trusts," as they are popularly called, and examine them critically in order to ascertain whether or not existing concrete conditions are in harmony with our general principles. We take up for this purpose two of the most recent lists, claimed by their compilers to be as nearly complete as any ever published up to the moment when they appeared—namely, the one published in the *Commercial Year-Book* for 1899* and the one published in the *Review of Reviews* for June, 1899, in an article by Mr. Byron W. Holt. These lists at first glance indicate that we have a veritable "rush to industrial monopoly" which threatens to absorb the entire field of industry. But a more critical examination suggests doubts about the extent of the movement as a monopolistic movement; and that, too, in spite of the fact that these lists are not so crude as many others which have been offered to the public.†

of the superiority of monopolized businesses implies an abandonment of the fundamental position of economics concerning the advantages of competition, and is a virtual surrender to the theory of socialism.

* Issued by the *Journal of Commerce and Commercial Bulletin* of New York.

† As an illustration of absurdities in this direction, we may cite the following headings of an article of some length which appeared a few months since in a prominent Chicago newspaper: "ICE-CREAM TRUST NOW — FOUR CHICAGO FIRMS UNITE." A little later another newspaper startles us with these head-lines: "TRUST IN PRUNES AND DERBY HATS!"

First, it is observed on careful examination that comparatively few of these combinations enjoy what, with the utmost stretch of language, can be called a monopoly. We notice, for example, "The California Wine-Makers' Corporation (allied with the California Wine Association)." This surely has no significance except as part of a wide-spread drift in the direction of business on a large scale. Competition has no more been abolished by this "trust" than it has by the "United Fruit Company," mentioned in one of the lists, or by the "Chautauqua Grape-Growers' Union," with its entirely laudable and socially beneficial purposes. The "American Bicycle Company" is mentioned as in the process of formation, as are many other combinations; but up to the present moment there is competition in the manufacture and sale of bicycles which makes it indeed difficult for many in the business to maintain bare solvency, and the purchasing public enjoys the full advantages of competition except in so far as patents set comparatively insignificant barriers. Competent judges regard the possibility of stopping competition in this business as most remote.*

Another fact noticeable in these combinations is the number of them working in the same field, thus

*Since the above was written, a newspaper item has appeared with these head-lines: "UNITE AGAINST THE TRUST. THREE BICYCLE MANUFACTURERS COMBINE, IT IS SAID, FOR PROTECTION."

giving promise of competition. We notice, for example, this item in our lists: "American Glucose Sugar Refining Company (opposition company)." We observe also several combinations of brewing companies, but as beer is shipped the very longest distances, we see no evidence of monopoly in the fact that the breweries in a single city may be consolidated into one company. Nor can we believe that the "Wholesale Grocers of New England" have a combination which will deprive the retail grocers of the benefits of competition in the purchase of their supplies.

Secondly, we observe that the lists include many businesses which fall within our classification of monopolies, and so far as these are concerned we have admitted all that is claimed. We acknowledge that they lie outside of the competitive field.

In the third place, it is significant that Mr. Holt in his article comes back again and again to special freight rates and to the connection between the railways and other monopolies. He says: "The virtual monopoly which Armour, Swift, Morris, and Hammond have had in cattle and meats comes less from any formal agreement as to prices which they will pay for cattle or at which they will sell beef (though they fix prices in both directions) than from the centralization of the business, the great capital invested, and the advantages which such immense dealers and shippers have in obtaining freight rates and in the distribution of meats and meat products."

Not all of this is clear. It is clear, however, that the claim is put forth, or simply stated, that they have an advantage in freight rates. The present writer believes that quite as great as the advantage in freight rates is that which they have in terminal facilities, the use of stock-yards, etc. Further on we read: "The great industrial trusts about which we are so greatly concerned just now began to appear in 1872, when the anthracite coal combination was formed by an alliance of producers and carriers, and when the interests which now compose the Standard Oil Trust first began to work in harmony." We have already accounted for the anthracite coal trust and the Standard Oil Company. We know, of course, that the coal-carrying railways are in close combination with the coal corporations, and that some of the railways are themselves great owners of coal-fields. That is the case with the Lehigh Valley, Lackawanna, and the Reading roads.

It is also brought out in Mr. Holt's article that the Standard Oil people have had much lower rates than other refiners, and that the excess of the rates charged to the others was in some cases turned over to the Standard Oil people. The most extreme case is one the story of which has been repeated so often and which was proved in court, where a railway company of Ohio charged Mr. George Rice, of Marietta, Ohio, a rate of thirty-five cents, and the Standard Oil Company a rate of ten cents, for carrying oil the same distance and under the same circumstances, and then of this thirty-five cents turned over twenty-

five cents to the Standard Oil people as rebate.* Of course, competition is simply impossible under such circumstances.

With reference to pipe lines, Mr. Holt expresses himself as follows: "Unable to obtain fair treatment from the railroads, the independent refiners in 1878-9, with a capital of $5,000,000, constructed the Tidewater Pipe Line Company. Immediately the railroads reduced their rates on oil from $1.15 per barrel to 80 cents, to 30 cents, to 10 cents, and at last, as the General Freight Agent of one of the roads stated, to a rate that would not pay for wheel grease. The Tidewater Pipe Line Company survived the many attacks until 1883, when it was gobbled up by the trust." We see here, again, that it is not only through raising rates, but also through lowering them, that competitors are ruined.

It is very natural that, with these advantages in transportation, attempts should be made to curtail production, and thus raise prices. It is chiefly because efforts to restrict production have not thus far met with any large measure of success for a long period that the price of oil has been so low as it has been. The only way to sell the large product was to put down the price. Hereafter, efforts to curtail production may be more successful.

In the meantime, the following statement from the well-known economist and Superintendent of

* The railway was the Cleveland and Marietta. The case is described in the author's *Problems of To-day*, pp. 202-208.

Schools in Chicago, Dr. E. Benjamin Andrews, is instructive:*

"On November 1, 1887, the Standard Oil authorities made a stipulation with the Producers' Protective Association of the oil-fields by which five million barrels of oil belonging to the Standard were set apart for the benefit of the association upon its engaging to curtail the production of crude oil at least 17,500 barrels a day. The paper was actually signed by the Standard Oil Company of New York, but the Producers understood, and so testified, that they had made it with the trust. If at the end of the year the production proved to have been lessened by the aforesaid amount, the Producers were to get all that this oil sold for above sixty-two cents a barrel; storage, fire-losses, and insurance being first subtracted. To make good its part of the writing, the Producers' Association entered into a covenant with the Well-Drillers' Union, agreeing to pay them the profits over sixty-two cents a barrel on one million barrels of oil and part profits on another million, in return for their promise to desist from drilling and cleaning wells throughout the oil-fields. . . . The Drillers called this 'earning' the oil. After the date of this agreement the average reduction was 25,000 barrels a day. Perhaps to the extent of 7000 barrels it was due to natural shrinkage, but the rest was in consequence of the shut-down."

There is also something in Mr. Holt's article about the combination on the part of the paper producers:

* Mr. Holt's article, *loc. cit.*

"Immediately after the organization of the trust it raised the price of paper wherever it was possible. In three cases it raised its price $10 a ton, and has averaged an increase of $5 a ton on its daily output of 1420 tons, equalling an increased tax of $2,130,000 per annum upon the newspapers of the country, which now pay a total exceeding $20,000,000 per annum for their paper supply. The newspaper men admitted, however—what the trust claimed—that it has a monopoly of the water-powers and wood-tracts so situated as to be available for the cheap production of paper. Domestic competition, at least for the present, is therefore out of the question. Thus, while the mills might be duplicated for $15,000,000, the water-powers and forest-tracts cannot be duplicated at any price."

We see here that the source of the monopoly is in wood-tracts and water-powers which are limited. This case affords another confirmation of the theory advanced by the author.

We have, then, explained the existence of some monopolies within the competitive field as due to the causes mentioned, and especially to private favoritism. A critical examination of the lists of trusts fails to reveal a single monopoly which cannot be explained on the grounds already advanced. Without entering the realm of prediction in the field of industrial society—an incursion which has proved disastrous to so many—we may simply say that no one has yet adduced an instance of an important monopoly resting upon mere mass of capital or upon mere combination without external aid.

Furthermore, we find no difficulty in raising enormous amounts of capital for competition, even if it is necessary to wait a long time for returns. It is stated, for example, that on a single work an American publishing house was willing to spend one million dollars before returns were received, and information from a reliable source would lead the author to regard this as a conservative estimate. Nor do we find business men hesitating to enter any field where they have what is called "a fighting chance." We have admitted that the oil business is now a monopoly. We, nevertheless, find a few competitors struggling on, and we find actual or would-be competitive refiners demanding only equal transportation facilities, and promising active competition, if these can be secured. It must be remembered, however, that equal transportation facilities are not necessarily obtained when equal rates are given. What has already been said should be sufficient on this point. The writer, however, distinctly remembers a conversation with competitive refiners in which the endless difficulties encountered by them in the matter of transportation facilities were dispassionately recited. Much juggling can be effected with freight classification, moving things from one class to another in such a way as to surprise and injure those who are marked out for ruin.* It was

* Complaint has been made in Pennsylvania that the independent refiners who wished to ship refined oil in tank-cars, receiving thereby rates much lower than those given for shipments in barrels, could not secure the tank-cars, and

shown how, chiefly through obstacles imposed by railways, it had been necessary to abandon field after field in which business had formerly been carried on.

It is necessary to add a few further suggestions concerning the relation between monopoly and mass of capital. If mass of capital alone can produce monopoly, there ought to be some discoverable ratio between mass of capital and monopoly forces. If, however, we take businesses in general, we cannot find even the slightest approximation to any ratio between mass of capital and forces making for monopoly. We find a small water company with a capital of $50,000 secure in the enjoyment of a monopoly in a village of 3000 inhabitants; and, on the other hand, we find great publishing houses with capital running into the millions competing vigorously with one another, and indeed with a vigor which has grown as the amount of capital

were thus forced to use the more expensive method of shipment. By an order of 1892, the Inter-State Commerce Commission required the carrying companies to furnish tank-cars to shippers impartially, or pay a penalty for failure. The independent refiners subsequently brought against the offending carriers a claim for damages suffered. A decision of the Commission, printed in the twelfth (last) annual report, p. 191, sustains the claim of the refiners. Up to September, 1888, there was no difference in freight rates per barrel as between shipment in barrels and shipment in tank-cars. Since that time the tank rate has remained constant, whereas the barrel rate has steadily increased until it now exceeds the tank rate by about 30 per cent.

has increased. We find mercantile and manufacturing establishments, with capital in the case of each establishment amounting to several millions, competing with one another; while, on the other hand, we observe that a street-car company, with a capital of $100,000, has a complete monopoly in its field. It may be urged that we should take each kind of business by itself. But, so far as any information now available is concerned, we shall not in that case reach a different result. If we take the lists of trusts published by the *Review of Reviews* and the *Commercial Year-Book*—to both of which reference has already been made—and go through them one by one, arranging the "trusts" in classes according to the nature of the business, we shall still fail to discover any approximation whatever towards a proportion between mass of capital and the extent to which monopoly obtains, or to the progress made in the direction of monopoly.

It has just been said that so far as our knowledge now extends we cannot discover a connection between mass of capital and monopoly force, whereas we do discover a relation between monopoly force and the other conditions which have been mentioned. We must avoid dogmatism. Our knowledge of concrete conditions is imperfect. It is conceivable that in some kinds of business the mass of capital required to secure even minimum living efficiency may be so vast that only a very few combinations—say, for example, six—capable of supplying this mass of capital, can be effected. If such is

the case anywhere, we undoubtedly have there conditions favorable for the establishment of monopoly. We may, however, justly claim that nothing of the kind has been shown up to the present; and here, again, it does not seem unfair to place the burden of proof upon those who come forward with economic doctrines contrary to opinions accepted for generations, and contrary to what has been heretofore regarded as the experience of modern industrial society. It seems not unreasonable to concede that the very necessity of a large mass of capital as a requisite of minimum living efficiency is helpful in the establishment of monopoly when it meets with other conditions favorable to monopoly; yet, when we observe how readily capital can be raised by the millions for promising enterprises, we can hardly escape the conclusion that, so far as our present knowledge is concerned, we are not warranted in attaching much weight to mere mass of capital even as a helpful condition.

We may, then, conclude that thus far our analysis of existing industrial conditions gives us no reason to abandon the conviction that competition is a permanent social force. The causes of competition are found in human nature and in the laws of the external physical universe, under the operation of which men must toil for their daily bread. Professor Giddings gives a philosophical statement of this truth in the following language: "That competition in some form is a permanent economic process is an implication of the conservation of energy.

Given an aggregate of units of unequal energy, their unequal activity is an inevitable consequence. With the complexity of social environment that every quarter of the earth everywhere presents, and the limitless variations of heredity, a society composed of individuals of equal energy is an impossibility. Therefore, when market competition seems to have been suppressed, we should inquire what has become of the forces by which it was generated. We should inquire, further, to what degree market competition actually is suppressed or converted into other forms, and within what limits combinations can hold together and act effectively. The combination equilibrium may be at best an unstable one."*

We sum up the matter, then, in this way: So far as we now see, we have a large field belonging to monopoly; but outside of this field we have another in which, under right conditions, competition is a permanent social force. Furthermore, we place the burden of proof upon those who claim that competition in industry is self-annihilating and invariably makes way for monopoly.

* *The Modern Distributive Process*, p. 22.

CHAPTER V

THE CONCENTRATION OF PRODUCTION AND TRUSTS

WE have endeavored to show that production on a large scale does not signify the abolition of competition, and does not as its necessary outcome imply monopoly. Our treatment, however, would not be complete without an additional discussion of large-scale production. To what extent does it as a matter of fact prevail? What does it carry with it? What are its limitations?*

There can be no doubt that there has been considerable concentration of production in certain branches of industry. So far as the writer is aware, this has not even been called in question. It is brought about by competition acting upon and through the improved machinery and improved processes which have resulted from the inventions and discoveries of the past one hundred

* The author would have it clearly understood that he does not profess in this chapter to discuss large-scale production in all its aspects, but desires simply to bring out some of its more general features which have a direct bearing on the subject of the present volume.

and fifty years.* Manufactures especially have grown in the magnitude of the single business-unit. Their tendency is to increase up to a point where maximum efficiency is reached. And unless the size of the business-unit increases up to the point where capital and labor are so efficient as to secure, for the one, replacement, together with an outlook for at least the lowest returns on capital which at the time will be accepted, and, for the other, subsistence according to an accepted standard of life, production must be suspended. This point we may call the point of minimum living efficiency. The point of maximum and the point of minimum efficiency vary with every kind of business and vary also from time to time. It is significant that the general tendency during the past two or three generations has been to increase the size of the business-unit both of minimum and of maximum efficiency. The writer is familiar with the history of a watch factory which was finally obliged to suspend operations. This was some time since, but, if the writer's memory serves him correctly, it was then said by those connected with it that to secure a sufficiently cheap production to market their watches, they must do business on a scale large enough to occupy something like three hundred employés. The

* This subject is ably discussed by Mr. John A. Hobson in his *Evolution of Capitalism*, especially in chapter iv., entitled "The Structure of Modern Industry."

precise number is not of significance. It is of significance that this establishment, like many others, perished because the business could not be conducted on a scale of minimum living efficiency.

Another illustration within the writer's knowledge may prove helpful, as it is one which can be paralleled by every reader with even a moderately wide acquaintance. In one of our large cities a man began business about seventy years ago. One of the principal products of the business was bells, and it is said that at the beginning the proprietor himself gathered up the old metal and carried it on a wheelbarrow to his foundry. The business began in the smallest possible way, but as years went on it increased to large proportions, and the proprietor died a wealthy man. The amount of capital with which the business was begun was so insignificant that a prudent mechanic could, within a short time, easily gather it together. Probably half a million dollars would to-day be a small sum with which to start a similar manufacturing establishment with a fair prospect of success.

The data which would enable us to tell the precise degree of present concentration of production have not as yet been gathered together, and still less are we able to measure accurately the progress which has been made in this direction. We have, however, a considerable amount of statistical information, and it is sufficiently full and accurate to

indicate a pronounced movement in many industries.*

The general movement in manufactures from 1870 to 1890 is indicated by the following table, taken from the Census Report:

Year.	Establishments.	Employés.	Product.	Per establishment. Employés.	Per establishment. Product.
1870	252,148	2,053,996	$3,385,860,354	8.15	$13,428
1880	253,502	2,700,732	5,349,191,458	10.66	21,101
1890	322,638	4,476,884	9,056,764,996	13.88	28,071†

The census figures for the four branches of the textile industry—namely, cotton manufacture, wool manufacture, silk manufacture, and dyeing and finishing—are as follows:

COMBINED TEXTILES

Year.	Establishments.	Employés.	Product.	Per establishment. Employés.	Per establishment. Product.
1850	3,025	146,897	$128,769,971	48.5	$42,568
1860	3,027	194,082	214,740,614	64.1	70,942
1870	4,790	274,943	520,386,764	57.4	108,640
1880	4,018	384,251	532,673,488	95.1	132,572
1890	4,114	511,897	721,749,262	124.4	175,435‡

Mr. Willoughby offers the following remarks in explanation of the table, and also of the tendency

* The best concise presentation of some of the leading facts in regard to this movement in the United States is probably that given by Mr. W. F. Willoughby, in the *Yale Review* for May, 1898, under the title "The Concentration of Industry in the United States."

† Cited by Mr. Willoughby, *ibid.*, p. 73.

‡ Cited by Mr. Willoughby, *ibid.*, p. 75.

towards localization or geographical centralization of industry:

"Combining the four branches of the textile trade, it is seen that while the number of establishments increased during the forty years considered but 36 per cent., the number of employés increased 248 per cent., and the value of the product 465 per cent. The average number of employés per establishment has thus steadily risen from 48.5 in 1850 to 64.1 in 1860, 57.4 in 1870, 95.1 in 1880, and 124.4 in 1890. In the case of all of the industries, it is important to notice that the movement towards concentration has gone on more rapidly in the later years.

"The tendency towards localization, or for similar establishments to group themselves in the same places, has been scarcely less strong, and has resulted in making four cities in different States the chief localities in which each industry is carried on—Philadelphia, Pa., in wool manufacture; Fall River, Mass., in cotton manufacture; Paterson, N. J., for silk; and Cohoes, N. Y., in the hosiery and knit-goods manufacture. The enormous growth in the wool-manufacturing trade during the last twenty years has been entirely confined to eight States in the East, while in the remaining States there has been an actual loss of 45 per cent. Philadelphia alone, in 1890, produced 21.82 per cent. of the entire woollens output of the country during that year."*

The iron business is one in which the movement has been especially rapid, and in which it has gone

* Cited by Mr. Willoughby, *ibid.*, p. 76.

far. The late Hon. Joseph D. Weeks, editor of *The American Manufacturer and Iron World*, probably one of the best authorities on this subject, wrote a letter to the author under date of January 8, 1894, from which the following is a quotation:

"I have yours of the 4th, regarding the tendency to concentration of production in the iron business. There is no question at all as to this tendency. I have been collecting statistics of the iron business now since 1870, and I have observed this tendency and written upon it again and again. When I first began gathering statistics of blast furnaces in 1872 there were quite a number of charcoal furnaces active in Pennsylvania. I do not recall the number, but I should think eighteen or twenty; you can count the number left now on the fingers of one hand. Not many years ago there were fifteen or twenty charcoal furnaces up the Alleghany River, near Pittsburgh. There is not one to-day, nor has there been one for years. It is not many years since the greater proportion of the pig-iron produced in the United States was made with anthracite coal as a fuel in the eastern part of Pennsylvania and up the Hudson; to-day much the larger percentage is coke-smelted iron. Up to 1859 there was not an iron furnace in Pittsburgh, the first furnace being built in that year; to-day Pittsburgh produces as much pig-iron as the entire South produces from Southern ores. I am speaking now from my own observation and knowledge.

"I do not know as the statistics showing these movements of the iron business have been collected and published, but the data are available, and with a little work

they could all be shown. Statistics are available certainly as far back as 1855 or 1856, and since 1870 there are yearly reports showing production by districts."

After the death of Mr. Weeks, *The American Manufacturer and Iron World*, under date of December 10, 1897, published a long article giving statistics showing the movement towards concentration in the blast-furnace industry. The most salient points brought out by the tables are presented in the following extract from an editorial which appeared in the same issue of that periodical:

"A truly remarkable showing is made. By reference to the tables on page 838, it will be seen that in January, 1890, there were 345 furnaces in blast with a total weekly capacity of 175,002 tons of pig-iron, or an average weekly capacity per furnace of 507 tons. On November 1, 1897, the number of furnaces in blast was only 185, while the total weekly capacity was 219,638 tons, equivalent to 1187 tons per furnace. Thus in 1897, with the number of furnaces less by 46 per cent. than in January, 1890, there is an increase of 25 per cent. in the total capacity, and of more than 130 per cent. in the average capacity per furnace. Another interesting feature shown by this table is that while the capacity of each charcoal furnace, and also of each anthracite-and-coke furnace, has increased, there has been a notable decrease both in the number of furnaces and of the total production. That is to say, the number of charcoal furnaces has decreased from 66 to 20, the total capacity from 12,693 tons to 4863 tons (nearly two-thirds), while the weekly capacity of each furnace in

blast increased from 192 tons to 243 tons. In the anthracite-and-coke furnaces the number has decreased from 111 to 27, the total capacity from 41,964 to 18,992 tons, while the capacity per furnace has nearly doubled. Among the bituminous furnaces there has been a decrease of about 20 per cent. in number, an increase of more than 50 per cent. in the total capacity, and the average capacity per furnace has nearly doubled. These statistics show very clearly how iron-making has followed the general tendency, and these figures may also be taken as one of the reasons why the prices of pig-iron have fallen. With greater capacity comes lessened cost, and less cost is followed by lower prices."

There are evidences that concentration in the iron business has increased still further since 1897, while the new developments following the opening-up of the Mesaba Range in Minnesota and the so-called Rockefeller-Carnegie combination* promise a further remarkable concentration in the iron-and-steel business, but not by any means the necessary suppression of competition; for there is nothing even pointing in the direction of the abolition of competition which cannot be explained by causes already advanced. In other words, competition still persists,

* See M. de Rousiers' *Les Industries Monopolisées aux États-Unis*, chap. v. The author relies upon M. de Rousiers for his facts concerning the Rockefeller-Carnegie combination. A recent newspaper item alleging that Mr. Rockefeller is "squeezing" the Carnegie interests in freight rates would indicate a less close alliance than one would infer from M. de Rousiers' statement.

especially international competition, which would be stimulated by a reform of the protective tariff; and we have promise of still further competition by new establishments for the working of iron and steel on a vast scale, whereas the greatest menace to competition comes from the superior transportation facilities on water and land enjoyed by a powerful combination. Furthermore, it must be remembered by the reader that a sufficient concentration of decidedly superior mineral treasures has already been admitted as a possible cause of monopoly, provided these mineral treasures are privately owned.

The purpose of the present book is not to give a full concrete presentation of industrial concentration, for, as already intimated, the time is not yet ripe for such a presentation. The present work deals rather with general principles, and it is hoped that it will be helpful to those who may hereafter give us the presentation of concrete phenomena. The facts concerning the iron business are adduced simply by way of illustration.

Accurate statistics of the brewing industry in Germany exist, and they show the same movement in the concentration of industry, which is as widespread as modern industrial civilization. The number of breweries decreased from 1400 in 1872 to 1050 in 1885, and yet, accompanying this decrease in the number of business-units, there was a large increase in production. The beet-sugar industry in the same country shows a largely increased production accompanying increased concentration. In

1836 the capacity per factory was 11½ tons, and in 1884–5 it was 2800 tons.

The life-insurance business in the United States affords another illustration of concentration of industry. The *World Almanac* gives statistics of the "old-line" life-insurance companies reporting to the New York Insurance Department for twenty-five years. In 1873 the number was fifty-six and the total income was $118,396,502; in 1897 the number was thirty-five with a total income of $301,268,179.

The flour-milling industry in the United States exhibits a similar movement. In fact, this business can, as a rule, with difficulty be carried on except on a large scale. The writer had a conversation a few years ago with an acquaintance who owned a flour mill in a rural district. It had been a mill of some importance, and the proprietor was then revolving in his mind the problem whether it would be better to provide the mill with modern machinery and attempt to secure sufficient wheat for milling on a large scale and a market for the flour, or to retire from the business altogether. This is a typical case, for thousands have been confronted with the same problem. The time to argue about this has gone by, as the movement is a clear one. It does not mean any necessary tendency towards monopoly, but it does mean that in many quarters of the industrial field it is not possible to do business on so small a scale as formerly.

Very significant in this connection is the present crisis in the Social Democratic party of Germany.

Present-day German socialism was founded upon the theories of Karl Marx, who, in his work *Capital*, maintains that in every branch of industry there are forces at work which, operating under the iron law of nature, will produce a complete monopoly, so that ultimately it will be necessary only to replace private monopoly with public monopoly in order to usher in socialism. This hypothesis is accompanied by others, making an apparently solid framework of doctrine. One hypothesis among these others is the increasing misery of the masses. Now it is precisely at the present time that one of the leaders of the German Social Democrats, Herr Eduard Bernstein, takes the position that socialism is not coming as the result of universal monopoly and increasing misery, but that, on the contrary, it will be the outcome of generally improved conditions. The following is a quotation from a recent work by Herr Bernstein:

"Notwithstanding continual changes in industrial groups and in their internal arrangements, the picture which presents itself to us to-day does not indicate that large manufacturing establishments continually devour business-units of small and moderate dimensions, but this picture simply shows large business establishments growing up by the side of smaller ones. It is only those establishments so small as to be called 'dwarf establishments' (*Zwergbetriebe*) which are suffering an absolute and relative decline. So far as the business-units of small and moderate size are concerned (*Klein- und Mittel-betriebe*), they are increasing. This is shown for Ger-

many by the following statistics of employés in establishments of these three classes:

	1882.	1895.	Increase. per cent.
Small establishments (1 to 5 persons)	2,457,950	3,056,318	24.3
Moderate-sized establishments (6 to 10 persons)	500,079	833,409	66.6
Large establishments (10 to 50 persons)	891,623	1,620,848	81.8

"The population, however, increased at the same time only to the extent of 13.5 per cent."

After further observations, Herr Bernstein uses the following words, which under the circumstances may be called remarkable:

"If modern society is to break to pieces by reason of the disappearance of the middle classes between the two extremes of the social pyramid, if this breaking to pieces depends upon the absorption of these middle classes by the extremes above and below, then this break-up is no nearer its realization to-day in England, Germany, and France than it was in any earlier period than the nineteenth century."*

In commerce we notice the development of the mammoth department-store in all modern cities, and we are pained by the distress of those who suf-

* Cited in an interesting article entitled "Bernsteins Kritik des Sozialismus," in the *Wochenblatt der Frankfurter Zeitung*, April 21, 1899. See, for the original, Bernstein's *Voraussetzungen des Sozialismus und die Aufgaben der Sozialdemocratie*, pp. 59–66.

fer under the pressure of competition. But notice, it is the pressure of competition, not the pressure of monopoly that produces the distress. Notwithstanding this development, we observe, alongside of these mammoth establishments, many small retail stores, and we can still see retail stores of one kind or another starting in the humblest way and prospering on account of the diligence and skill with which they are managed by their proprietors.

Agriculture least of all exhibits any general movement in the direction of concentration. We see a few large farms growing up and prospering, but at the same time many great estates are divided up, and it is not clear that in our own or other countries we have had during the last two generations any concentration of production. A personal word in this connection is sufficiently instructive to warrant its insertion. The writer's course on the Distribution of Wealth has been given in the University of Wisconsin for seven years, and in his classes he has had many bright minds, some of whom are already beginning to be known by their writings, and give promise of eminence. Again and again the subject of concentration of production in agriculture has been assigned to members of the classes, and a great amount of time has been expended in investigation of available data. Any one at all familiar with the author's methods will readily accept the statement that not the slightest pressure has ever been brought to bear upon a student to influence him towards a foreseen conclusion. Now the point

is this: No one yet has been able to show any concentration in agricultural production, so far as area is concerned, although one investigator thinks that there is some indication of concentration so far as the value of the farms cultivated is concerned. The results are, perhaps, in no case as yet ready for publication, but undoubtedly some of those who have been engaged in these investigations will sooner or later publish the facts so far as they shall then be ascertained.*

* The figures in chapter iv., in regard to wheat production in California, which the author's correspondent quotes (see p. 155), are altogether misleading, as any one widely familiar with agriculture knows. The author is inclined to doubt their accuracy, even for California, but even if accurate for that State, it is owing to exceptional conditions, among which the climate is an important one. The following quotation from Dr. Charles B. Spahr's article, entitled "The Northern Farm," which appeared in the *Outlook* for November 4, 1899, is especially instructive in this connection:

"I went from Litchfield to the Red River Valley to investigate 'bonanza farms.' Ever since David A. Wells, in his *Recent Economic Changes*, published about ten years ago, urged that the prices of farm products were being reduced by the cheaper methods of production employed on the great ranches, the impression has been circulated far and wide that in agriculture as in manufacturing the 'big fish are eating up the little ones,' and that the independent small farm is soon to be a thing of the past. From the time I entered Minnesota till the time I left North Dakota—the supposed fields of gold for the great wheat ranches—I heard not a single fact that even seemed to support the prevalent Eastern theory. In southern Minnesota everybody I asked agreed that the large farms had been the least successful, and Superintendent Gregg assured me that all over the State the big farms were gradually being broken up

The size of the business-unit of maximum efficiency must depend upon the capacity of the head of the business-unit, upon the nature of the particular business, and upon the progress which, at the given moment, has been made in the methods of organization. Whenever a business outgrows the capacity of one man to maintain unity, the danger point is reached. Men differ greatly in the generalship required for the management of a vast business, and unity is maintained in some businesses far more easily than in others. It is quite possible that with a division of the railways of the United States into suitable geographical areas, each with a large measure of autonomy, a unified management could in a general way be exercised over them all. The size of the business concern in manufacturing over which unity can be exercised is, so far as can now be seen, much smaller; and still smaller is the mercantile establishment over which unified control can be ex-

into smaller ones. On the railroad-car north, my first travelling companion proved to be the agent of one of the very large land companies in the western part of the State, and when I asked him about the profitableness of farming on a large scale, he said that his company had now adopted the policy of selling its land to small farmers. He did not, indeed, depict the 'bonanza' farm as hopeless, but he recognized that it was less profitable than the small farm managed and tilled by its owner. When I reached the Red River Valley, where the large farms are still the rule, this judgment was universally confirmed. The great estates of that region are doomed to disintegration. The great wheat ranch cannot compete with the small diversified farm. In agriculture the big fish are furnishing food for the little ones."

ercised. Vastly smaller in agriculture is the size of the business-unit over which unified control can be exercised. With the change from extensive to intensive culture there is apparently a general tendency to divide up large estates, although it is perhaps true that after this change has once been made there is again a very moderate movement in the direction of larger farms.*

When large-scale production without any special favors conquers a position for itself in any portion of the industrial field, it is because it carries with it advantages for society. These have been frequently described, and it is probably not too much to say that they are at present familiar not merely to students of economics, but to well-informed persons generally. A more extended division of labor in these cases means a more effective organization of industrial forces whereby an economy is effected both in human labor power and in the expenditure of capital. Large-scale production means a use of machinery which multiplies the work of human labor power, ten, one hundred, and even one thousand-fold. Large-scale production also means particularly the utilization of former waste, and in this direction some of its most signal triumphs have been achieved. There are many stories afloat which illustrate the utilization of

* This movement is suggested by Professor Amos G. Warner in two valuable articles on "California Land Problems," which appeared in the *Record and Guide*, of New York, in the issues for March 7 and 14, 1896.

waste in the great packing-houses in Chicago, of which this one is typical: "Mr. Armour says that the only part of the hog which he cannot save and utilize is its dying breath." The field for generalship which large-scale production affords has already been mentioned. It utilizes and develops abilities, perhaps comparable to those of a great warrior, while details are left for men of a subordinate order of talent.

We need not dwell longer upon this familiar ground. Large-scale production adds to human comfort and well-being through increased production of material wealth. Large-scale production increases the margin between the human race and bare subsistence, or even starvation. Further progress is needed in the production of material wealth. The surplus over subsistence may seem to be vast when we contemplate the mode of life of the well-to-do and the wealthy, and the surplus is, indeed, vast. Nevertheless, any considerable addition to the average income of the people could be effected only by a vastly increased production of material wealth. If there are seventy millions of human beings in the United States at the present time, an addition of five cents a day to the income of each would mean an annual increase in the total national income of $1,277,500,000; and of course it must always be remembered that the conditions in the United States are exceptionally favorable; that elsewhere hundreds of millions of human beings lack what we regard as the barest necessaries of life

in the way of food, clothing, and shelter. The point which must be emphasized, then, is that one of the conditions of satisfactory human progress is increased efficiency in production. Resistance to large-scale production, when this kind of production comes about not through external favoritism, but as a result of inherent advantages, is like resistance to machinery, to which it has so often been compared. There are, indeed, serious evils connected with that evolution of industry which has brought us the growth of the business-unit of vast proportions. But these evils must be cured, in so far as cure is possible—and a great deal is possible in the way of cure—while still keeping the increased efficiency of large-scale production with all its benefits.

But it is not true that the entire movement is altogether in the direction of large-scale production, even in manufactures, where, as Professor Marshall points out, there are special advantages on account of the fact that manufacturers have the power to choose freely the locality in which they will do their work, whereby they are enabled to select that locality in which the greatest advantages are concentrated, manufacture presenting in this respect a contrast with agriculture and also with extractive industries in which the locality for occupation is largely dictated by fertility and the presence of the natural treasures. The difference is simply that a large production in manufactures can be conducted on an incomparably smaller area than in agriculture or the extractive industries.

But, as already stated, not even in manufactures does everything move in the direction of large-scale production. The industry of repairing tools and machines, for example, is carried on by prosperous mechanics on the smallest scale. We find their little shops in considerable numbers in every community of any size.

There is also opportunity for small-scale manufacturing in all cases in which things are made to suit individual tastes. The most familiar illustration is furnished by what is called custom-made clothing. But this catering to the individual tastes of the consumer is not by any means all, nor is it even what is most significant in recent developments. There is along many lines an increasing demand for things which give expression to individuality in the worker. Printing is now carried on in more that one great city almost as a fine art and on a small scale with a minimum amount of machinery. Bookbinding also is undergoing a development which places it almost if not quite within the realm of the fine arts. There are indications that development of the handicrafts along this line is not to be attributed to mere passing whim and caprice, or what we frequently designate as faddism. There is a desire for individualization in production, and there is some ground to suppose that there will be in the future a considerable class of persons demanding not so many things, but fewer and better things, and especially things which give opportunity for an expression of the individuality of the worker.

This movement is well described by Mr. John A. Hobson in his excellent work, *John Ruskin, Social Reformer*. It appears from this work that there has been formed in England under the influence of Mr. Ruskin's teaching a society called "The Home Arts and Industries Association." One of its aims is stated as follows: "To revive the old handicrafts which once flourished in England and which have now almost died out, and to encourage the laboring classes to take a pride in making their homes beautiful by their own work." After describing the considerable progress of the work of this society, Mr. Hobson says:

"It is, in a word, a practical informal attempt of a civilized society to mark out for itself the reasonable limits of machine-production, and to insist that 'cheapness' shall not dominate the whole industrial world to the detriment of the pleasure and benefit arising from good work to the worker and the consumer. Such a movement neither hopes nor seeks to restore mediævalism in industry, nor does it profess hostility to machinery, but it insists that machines shall be confined to the heavy, dull, monotonous, and therefore inhuman, processes of work, while for the skill of human hand and eye shall be preserved all work which is pleasant and educative in its doing, and the skill and character of which contribute pleasure and profit to its use."*

The author does not desire to emphasize unduly the importance of this movement, but it at least in-

* See Hobson's *John Ruskin, Social Reformer*, pp. 322–3.

dicates that not everything is going in the direction of large-scale machine-production.

Nor does all progress favor even machine-production on a large scale. We have already given statistics showing the persistence of small-scale manufacturing-production in Germany, and these statistics could be paralleled in every modern country. Inventions and discoveries have, on the whole, favored the development of production on a large scale. Now, however, there are schools and various other agencies which have for their express purpose a wide diffusion of technical knowledge; and these agencies render the knowledge available to the one who is working on a small scale. The possibility of securing cheap gas as a fuel and electric or water power at low rates frequently helps the one who produces on a small scale to hold his own against the large producer. Recent progress has made it possible to have gas and electric power, and often water power, at a very low rate, and this possibility is realized especially in the case of public ownership and operation of those utilities. Too frequently in the case of private ownership and operation this cheapened production is used for increased dividends and stock-watering, and also too frequently in the case of private undertakings the interests of the large consumer are advanced by lower rates than those accorded to the small consumer, and that, too, to a needless and unwarranted extent. It is noticeable, however, as an indication of progress favorable to the small producer, that the idea

and the practice of public ownership are rapidly gaining ground. It is not the purpose at the present time to enter into any argument concerning the advantages of public ownership as contrasted with private ownership, but simply to call attention to a drift favorable to production on a small scale in many parts of the industrial field.

The development of postal facilities is favorable to large department-stores, but it also favors many small producers who are able to send their products long distances for low rates. Thus, printing-work for secret societies is done to some considerable extent in a little village in western New York, and in the same way the post-office affords opportunities for producers in a rural district in Virginia to raise violets for the Philadelphia market. These instances are simply illustrative.

Frequently there is opportunity for the individual producer with initiative to discover some improved way of satisfying old wants, and to begin production on a small scale with prospect of success, provided he is alert and diligent as well as technically skilful. We have seen manufacturing establishments rise in this way in small cities in the Northwest and elsewhere which have been able to supply improved underclothing, while other producers were continuing to move in old ruts. Underclothing has come to be made more generally to suit individual needs, and has also been improved in other ways as the result of the efforts of men who started manufacturing in a small way.

Though we may condemn attempts to reverse the manifest order of evolution—to turn backward to old forms — we may yet contemplate with satisfaction certain indications of a movement which will restore some of the advantages of old forms while maintaining the efficiency brought us by new methods.

But we must not overlook the other side of the picture. If the industrial evolution which we have just been describing, resulting in large-scale production in so large a proportion of the industrial field, has brought us benefits, it has also brought us evils, although these evils have not always been correctly perceived, and features of the movement which are really beneficial have been regarded by some as evils. Allegation of evils is in many cases due to a faulty political economy. If, as the result of concentration, it is possible to dispense with the services of thirty-five thousand drummers, as is so often alleged — probably an exaggeration — it is a good thing, because it means increased efficiency and a larger supply of human brains and energy available for the satisfaction of the wants of the world. Frequently mention is made of the vacant stores in cities, as if this were an evil; but the real problem is to increase available land supply in large cities, and if department-stores make it possible to do the commercial business of these cities on a much smaller area, more ground is left for dwellings and for purposes of recreation, and the result is a gain. To resist this movement

is on a par with burning down houses to make work.

Where, then, are the real evils? If those drummers who lose their positions do not find something else to do which will fully employ their powers, we have an evil. Many of them do find other employment, and many are positively helped by being jarred out of the ruts into which they have fallen; but this is not by any means the case with all who lose their occupations as a result of industrial readjustments. It is here as it has been in the case of machinery. One of the errors of many speakers at the Chicago Conference on Trusts was an overhasty generalization concerning the universality of the beneficial effects of machinery. On the whole, machinery is a benefit, and it was folly to attempt to oppose it. Nevertheless, machinery did displace a great many workers, and not all of them succeeded in finding employment. Many mechanics suffered, and suffered grievously. Some of the utterances heard at this conference were in marked contrast with the scholarly lectures on the subject of Industrial Revolution, given the past summer at the University of Wisconsin, by Dr. William Cunningham, of Cambridge University, England. In these lectures Dr. Cunningham showed by analysis that in some cases there was an expansion of the opportunities for work—for example, in the spinning industry — of such a kind that no one suffered on account of machinery; whereas in very many other cases—for example, wool-combing—there was very

little expansion and there was intense suffering.* Particularly those in middle life or beyond, who have acquired a specialized skill which is rendered useless by improved methods of production, are likely to suffer permanently. It is of no use to talk to them about what happens "in the *long run*," for their life is, as has so frequently been observed, only a short run.

Many other alleged evils are either not evils at all or are of less importance than has been represented. We have, for instance, the independence of the small producer, of which much has been made. President Cleveland, in one of his annual messages to Congress, emphasized the loss of the benefits of the sturdy independence of the man working on his own account, as the chief objection to the trust movement.† There is something in

* *Cf.* his work, *The Outlines of English Industrial History*, chapter ix., on "Labor and Capital."

† "Another topic in which our people rightfully take a deep interest may be here briefly considered. I refer to the existence of trusts and other huge aggregations of capital, the object of which is to secure the monopoly of some particular branch of trade, industry, or commerce, and to stifle wholesome competition. When these are defended, it is usually on the ground that though they increase profits they also reduce prices, and thus may benefit the public. It must be remembered, however, that a reduction of prices to the people is not one of the real objects of these organizations, nor is their tendency necessarily in that direction. If it occurs in a particular case it is only because it accords with the purposes or interests of those managing the scheme.

this, but it can well be exaggerated. Take, for example, the case of a small struggling merchant who lives by personal solicitation. Is such a man really independent? Does he openly express his views on religious and political matters? We have all seen timidity, or even servility, and not independence in cases of this kind. The condition of the small British tradesman in this matter of servility to customers is well sketched by George Eliot in her portrayal of English life, and it is not a pleasant pic-

"Such occasional results fall far short of compensating the palpable evils charged to the account of trusts and monopolies. Their tendency is to crush out individual independence and to hinder or prevent the free use of human faculties and the full development of human character. Through them the farmer, the artisan, and the small trader is in danger of dislodgment from the proud position of being his own master, watchful of all that touches his country's prosperity, in which he has an individual lot, and interested in all that affects the advantages of business of which he is a factor, to be relegated to the level of a mere appurtenance to a great machine, with little free will, with no duty but that of passive obedience, and with little hope or opportunity of rising in the scale of responsible and helpful citizenship.

"To the instinctive belief that such is the inevitable trend of trusts and monopolies is due the wide-spread and deep-seated popular aversion in which they are held, and the not unreasonable insistence that, whatever may be their incidental economic advantages, their general effect upon personal character, prospects, and usefulness cannot be otherwise than injurious."—*Message of President Cleveland, December* 7, 1896.

ture.* Many an employé of a vast corporation or of a large political unit has a far greater degree of true independence as well as a better opportunity for the development of his faculties. To take an extreme case: Will the professor in a great university gain in independence and in his sphere of action if he resigns his position to start a private school? Ordinarily not. There are undoubtedly some, and especially those not performing functions requiring any high degree of skill or special talent, who are placed in a position of dependence, frequently degrading, in the service of vast aggregations of capital. Here we have an evil.

It is claimed for large-scale production that it secures steadiness of employment. Mr. Willoughby, in his article on "The Concentration of Production in the United States,"† enlarges on this point, and asserts that the wage-earners have in consequence of concentration gained decidedly in regularity of employment. It is, however, difficult, in the pres-

* Mr. Harold Frederic, in his novel, *The Market Place*, incidentally gives us a similar picture. A rich *parvenu*, named Thorpe, buys an estate called Pellesley Court and changes its name to High Thorpe. "By the autumn of the following year, a certain small proportion of the people inhabiting the district in Hertfordshire which set its clocks by the dial over the stable tower of Pellesley Court had accustomed themselves to give the place its new name of High Thorpe. These were for the most part the folk of peculiarly facile wits and ready powers of adaptation, like pushing small tradesmen, and the upper servants in country houses."

† *Yale Review*, 1898.

ent transitional and formative stage of industry, to speak positively concerning the connection between the growth of the business-unit and steadiness of production. A conclusion cannot be drawn from a few selected establishments, but rather we must take the movement as a whole. When we do so, we recall the violent fluctuations in production and irregularity of employment which have attended the growth in the size of the business-unit. It may not be that we have here to do with a causal relation, but, at any rate, the two have existed side by side—namely, a growing business-unit and irregularity of employment.

We must, however, distinguish between businesses simply producing on a large scale and those in which there is an attempt to secure monopoly. If we consider a competitive business which has without special favors grown to large proportions, we shall be inclined to admit that a greater regularity of operation may be anticipated than in the case of many small businesses. The large area of its operations undoubtedly tends to diminish the chance element, in accordance with well-known and accepted principles. Local adversity in one quarter of its field of operation may be offset by unusual prosperity in another quarter of the field. On the other hand, it should not be overlooked that everywhere we may find small businesses engaged in steady production, and apparently suffering little even in times of general depression. There is probably not a city of twenty thousand

inhabitants in the United States in which small businesses with remarkable steadiness of production cannot be discovered.

When we take up businesses striving for monopoly in what, according to the theory of this work, is regarded as the competitive field, we cannot fail to observe many irregularities. Perhaps these irregularities have been most keenly felt by investors. There have been prepared for the writer graphical illustrations of the fluctuations of several so-called trust stocks from 1890 to 1896. These illustrations include the American Tobacco Company, the American Sugar Refining Company, the Distilling and Cattle Feeding Company, and the National Cordage Company. The graphical illustrations suggest the zigzag course of a streak of lightning in its movement across the heavens. The course of the stock market has not, to be sure, been accompanied with equal irregularities in employment; yet the irregularity in employment in the case of the manufacturing concerns which have endeavored to secure monopoly has been great. Indeed, one of the principal sources of popular anxiety at the present time comes precisely from irregularity and uncertainty of employment. Many factories have been closed, and the workmen have been discharged. Elsewhere in this volume it is admitted that economy in labor power and in the use of capital is, on the whole, a good thing; but we cannot for that reason overlook the irregularities which have accompanied recent industrial evolution.

And when we speak of these irregularities, we must consider not merely the gigantic establishments themselves, but their influence upon steadiness of production and employment in other establishments.

If some of the manufacturing establishments which have been fighting to secure monopoly should finally succeed in passing beyond the fighting era, doubtless very different results will appear. A monopolized business has possibilities of systematic, planful production, which it must be admitted do not exist in the same degree for competitive businesses. In other words, we reach here one of the strongest points made by the Socialists. Where production is strictly unified, the whole field can be overlooked; demand can be anticipated, and production regulated accordingly. We come back again, then, to the old controversy between socialism and competition. It is held by the non-socialist that the active stimulus of competition in its field more than counterbalances admitted disadvantages of competition. Naturally this subject belongs chiefly to that part of the general treatise on *The Distribution of Wealth* which deals with competition. It is here suggested, on the one hand, that as a result of improved statistical knowledge, revealing what is going on in each branch of production, some of the evils of the competitive order may be greatly mitigated. On the other hand, it is suggested that the very complaints which we now hear in regard to competition show some of the advantages to be secured by the mainten-

ance of the competitive order, if it is granted that this is possible. Thus, for instance, it is said that it is extremely difficult to "make money" in a competitive business. This is true; and the fact serves as a powerful stimulus to activity. The struggle of competition is undoubtedly severe, and it requires large capacity and intense activity to secure great gains. But under a normal competitive order, large capital coupled with intense activity means an unusual amount of social service. Is not this, then, as it should be? Those who render large social service have large reward. And through competition a diffusion of the benefits of improvement is secured. This is a claim for competition, provided that competition can be maintained and competitive business placed upon a high ethical level, in which case it will only remain for every one to equip himself in the best possible manner for the service with its appropriate reward.

On the whole, it can hardly be claimed that the wage-earners have, with the growth of the business-unit, lost in opportunities for development.* It must not be forgotten that with the increase of

* Mr. W. F. Willoughby takes, perhaps, too roseate a view of the effects of concentration of business on the position of the workman; and yet it must be admitted by every one that what he says is for the most part true, even if not the whole of the truth. Among other things he says:

"In the first place, the material conditions, or the environment under which the laborers carry on their work, is far superior in the large establishment. The large establishment means large mills,

the business-unit comes organization, and that organization also has its social and educational advantages, as well as, in turn, its own evils.

large plants. In the place of small buildings, often structures erected for other purposes and ill suited for the work carried on in them, and with low ceilings and insufficient light, in which the small establishment was located, one now sees large, specially constructed buildings, with high ceilings, an abundance of light, good drainage and water supply. Here are found labor-saving machines, improved devices for guarding against accidents, for removing dust or other substances injurious to the health of the laborers. In the large establishment it is possible for the employers, or for the men themselves, to maintain various institutions for the latter's comfort, such as baths, libraries, club-houses, eating- and lodging-rooms for the unmarried men. To secure the needed room, employers are more and more going to the outskirts of the cities, or even to the open country, to locate their plants. Instead of being located in narrow streets of the squalid quarters of a city, establishments of the larger concerns are now situated where the benefits of pure air and pure water can be obtained, where the men and their families can live in detached cottages instead of crowded tenements, and where they can more readily become the owners of their own homes. These are points that cannot be proven by the marshalling of figures. It needs but a slight acquaintance, however, with the actual conditions under which industry is now carried on, to perceive that the growth of the large establishment means the great improvement of the conditions under which the workingmen must perform their labor. One has but to glance at the conditions pertaining in the garment-making and tobacco-manufacturing trades as now practised in our large cities, where, under the régime of numerous small shops, the sweating system holds full sway, and contrast them with those of the mill operatives, who have made the cloth, to realize the superiority of the latter. The effort to abolish the sweating system is the attempt to have this work performed in large mills and regularly organized and equipped workshops.

"It is now, moreover, pretty generally accepted that the state

The trust movement, so called, considered apart from the movement in the direction of wealth concentration on the one hand, and the movement towards monopoly on the other, means at the present time nothing else than this general tendency towards increased size of the business-unit. Of course the author would here be understood as referring to a genuine industrial evolution and not to a merely speculative movement which has aimed to take advantage of a favorable condition of the stock market.* Formerly the trusts were businesses

has a part to play in determining the conditions under which industry shall be carried on. Such legislation as the prohibition of the employment of children of tender age, the requirement that mill-owners shall provide seats for female employées, separate toilet facilities for the two sexes, the maintenance of hygienic conditions, etc., have contributed greatly to improving the condition of the laboring classes. The weak point in this legislation has been the difficulty with which it is enforced. In the small and widely diffused shops such enforcement is often impossible. The growth of the large establishment simplifies greatly this task of the state. Concealment or evasion is here difficult."—"The Concentration of Industry in the United States," *Yale Review*, May, 1898.

* President Arthur T. Hadley, in an article on "Trusts" in *Scribner's Magazine* for November, 1899, calls attention to still another phase of this movement. He ascribes it in part to a legitimate desire to find a wider market for the securities of manufacturing establishments than they, as a rule, have had heretofore. A local manufacturing establishment, even if large and prosperous, has scarcely more than a local market for its stocks and bonds; but when it combines on a national scale with other establishments engaged in the same kind of business, it finds a national or even a world

which found unity through trustees into whose hands they were placed for management. Trusteeship was simply a mode whereby combination was effected. When legislators who failed to look below the surface phenomena outlawed this sort of trusteeship, other modes of union were formed, especially the vast corporation which absorbed the smaller corporations. It must be clearly understood, then, that there is no such thing as a trust problem in itself. The trust problem, as it is called, means the wide-spread tendency to do business on a large scale. The so-called trusts are not a bad thing, unless business on a large scale is a bad thing. On the contrary, when they come about as the result of a free development, they are a good thing, and it is a bad thing to attempt to break them up; from efforts of this kind no good has yet come to the American people. The futility of attempts to accomplish anything beneficial by efforts of this kind is well illustrated by the result of the successful suit brought by the Attorney-General of Illinois against the Pullman Company. It was found that this company had undertaken to do a great many things which the act of incorporation did not entitle it to do. The suit of the Attorney-General in the interests of the people was, as just stated, successful; but it would be hard to find the human

market for its securities. The present author would only add that this wider market for securities should follow and not precede the natural evolution of industry.

being who has received any benefit from this successful suit, unless it be a few lawyers who have received employment in the process of readjustment. If the Pullman Company has been obliged to sell its gas-works, it does not necessarily mean that gas will be supplied under more favorable conditions. It doubtless means that the small gas-works will be absorbed by the greater gas-works, so that the people will be brought face to face with another vast aggregation of capital.

We have spoken of the "trust movement" as a genuine industrial evolution, and such it has been in part; but, in part, as we have also intimated, it is a purely speculative movement. As a speculative movement it belongs to the category of operations which, on the one hand, have offered a sad exhibition of the credulity of men, and on the other have produced more wide-spread disaster than all the earthquakes of which history furnishes a record. We place the speculative movement on a par with the Mississippi schemes of John Law—not by any means altogether unreasonable in every particular—and the bubble companies of the eighteenth century in England, culminating in the South Sea Bubble, which burst in 1720. The success of the Standard Oil combination and a few others has captivated the imaginations of men; the limitations of monopoly not being perceived, there has been a readiness to believe that every combination has in it a potential gold mine, and a speculative temper on the stock exchange has made it possible for pro-

moters to exploit the general public. The trust movement is not likely to yield such a large wreckage as the bubble movement of the eighteenth century, because it has received checks from several sources; and of these checks one of the more potent has been the action of the bankers in a closer scrutiny of trust projects. Yet even they did not move vigorously until many had sown the wind to reap the whirlwind; and it is not certain that even now in their scrutiny of projects they are performing their full duty to the public. For it must be remembered that their position as advisers of investors places a heavy responsibility upon them.*

*The point just made in the text is well brought out in the following quotations from three conservative periodicals:

"The advantages of combination, which have rendered it one of the striking tendencies of the general economic situation, have, of course, their influence in producing the present manifestations. But, in addition, the success which has attended so many of the new combinations organized and brought out within the past twelve months has rendered manufacturers in other lines of business the more prone to listen to suggestions of this kind, while it is now comparatively easy to enlist the support of large financial interests, and even of conservative bankers, in the formation of the syndicates whose assistance is a necessary part of the general plan of such operations. The present week has brought further additions to the combinations incorporated or actually brought out and to the number of those which are understood to be still in the stage of negotiation and preparation, and which embrace a great variety of different industries."—"Industrial Combinations," *Bradstreet's*, Saturday, February 18, 1899, volume 27, page 98.

"For the wild commotion on the stock exchange during the last

month or two, the blame is commonly laid at the door of the so-called 'industrial' incorporations. This is true to the extent that the spirit of reckless speculation has, perhaps, concentrated more on this class of stocks than on others. But the fact is that, in the peculiar position of the public mind at the opening of the year, it was merely a question of finding something which the promoter could foist upon the public at inflated values."—"The Wall Street Incident," *Nation*, Thursday, April 13, 1899, volume 68, page 270.

"We have spoken of the accumulation of capital as one potent factor in the extension of these industrial combinations. It will be very evident how strikingly, this being the case, the organization of such enterprises adapts itself to the existing situation. Every one knows the peculiar position of American capital at the present time. Our fortunate trade of the last three years, and our equally fortunate economies as a people, have made the United States, for the time, richer in available funds than at any previous epoch in its history. Simultaneously it has been discovered that the field of available investment has not widened along with the new supplies of capital. . . . It is not, then, at all surprising that promoters of industrial combinations should be hastening to place their shares in the open market."—"The Industrial Stocks," *The Commercial and Financial Chronicle*, Saturday, January 7, 1899, volume 68, page 5.

CHAPTER VI

EVILS AND REMEDIES

A STATEMENT of the problems presented by monopolies and trusts suggests the evils for which remedies are sought. What, then, are the problems with which we are dealing? As we have already seen, there is, strictly speaking, no trust problem. But when people talk about trusts, they have problems in mind which are real and genuine. Analysis reveals that we have here to do with three main problems: First, a monopoly problem; secondly, a problem of industrial concentration; and thirdly, a problem of wealth concentration.

The evils of monopoly have for the most part been already stated or implied in our previous discussion. There remains, however, something to be added, and we can continue the discussion of evils in no better way than by directing attention to the statement of these evils by the courts. A leading case is the English one of Darcy *vs.* Allein, of 1602. The evils of monopoly were stated in these words: "First. 'The price of the same commodity will be raised, for he who has the sole selling of any commodity, may and will make the

price as he pleases. . . . The second incident to a monopoly is that after the monopoly is granted the commodity is not so good and merchantable as it was before: for the patentee, having the sole trade, regards only his private benefit, and not the commonwealth. Third. It tends to the impoverishment of divers artificers and others, who, before, by the labor of their hands in their art or trade, have maintained themselves and their families, who now will of necessity be constrained to live in idleness and beggary.' "* This exposition of

* Quoted by Beach, *Monopolies and Industrial Trusts*, p. 11, where it is spoken of as the case of Darcy *vs.* Allen, but it should be *vs.* Allein. The outline of the case as taken from 11 Coke's Reports, 84 f. *et seqq.*, is sufficiently interesting and important to warrant its insertion.

"THE CASE OF MONOPOLIES.
TRIN. 44 ELIZ.

A grant by the Crown of the sole making of cards within the realm, is void.

"'A dispensation or licence to have the sole importation and merchandizing of cards, without any limitation or stint, is against law, notwithstanding the 3 E. 4, which imposes a forfeiture upon their importation. S. C. [(Moor. 671. Noy 173.)]

"EDWARD DARCY, Esquire, a Groom of the Privy Chamber to Queen Elizabeth, brought an action on the case against T. Allein, Haberdasher, of London, and declared, that Queen Elizabeth, 13 *Junii*, *anno* 30 *Eliz.* intending that her subjects being able men to exercise husbandry, should apply themselves thereunto, and that they should not employ themselves in making playing cards, which had not been any ancient manual occupation within this realm, and that by making such a multitude of cards, card-playing was become more frequent and especially among servants and apprentices, and poor artificers; and to the end her subjects might apply themselves

evils has been very frequently endorsed by American courts, and one of these courts adds this comment upon the third ground mentioned: "The third objection, though frequently overlooked, is

to more lawful and necessary trades; by her letters patent under the great seal of the same date granted to Ralph Bowes, Esq. full power, licence and authority, by himself, his servants, factors, and deputies, to provide and buy in any parts beyond the sea, all such playing cards as he thought good, and to import them into this realm, and to sell and utter them within the same, and that he, his servants, factors, and deputies, should have and enjoy the whole trade, traffic, and merchandize, of all playing cards; and by the same letters patent further granted, that the said Ralph Bowes, his servants, factors, and deputies, and none other should have the making of playing cards within the realm, to have and to hold for twelve years; and by the same letters patent, the Queen charged and commanded, that no person or persons besides the said Ralph Bowes, &c. should bring any cards within the realm during those twelve years; nor should buy, sell, or offer to be sold within the said realm, within the said term, any playing cards, nor should make, or cause to be made any playing cards within the said realm, upon pain of the Queen's highest displeasure, and of such fine and punishment as offenders in the case of voluntary contempt deserve. And afterwards the said Queen, 11 Aug. *anno.* 40 *Eliz.* by her letters patent reciting the former grants made to Ralph Bowes, granted the plaintiff, his executors, and administrators, and their deputies, &c. the same privileges, authorities, and other the said premises, for twenty-one years after the end of the former term, rendering to the Queen 100 marks *per annum;* and further granted to him a seal to mark the cards. And further declared, that after the end of said term of twelve years, *s.* 30 *Junii, an.* 42 *Eliz.* the plaintiff caused to be made 400 grosses of cards for the necessary uses of the subjects, to be sold within this realm, and had expended in making them 5000*l.*, and that the defendant knowing of the said grant and prohibition in the plaintiff's letters patent, and other the premises, 15 *Martii, anno* 44 *Eliz.* without the Queen's licence, or the plaintiff's, &c. at Westminster caused to be made 80 grosses

none the less important. A society in which a few men are the employers and the great body are merely employés or servants, is not the most desirable in a republic; and it should be as much the policy of the laws to multiply the numbers engaged in independent pursuits or in the profits of production as to cheapen the price to the consumer. Such policy would tend to an equality of fortunes among its citizens, thought to be so desirable in a republic, and lessen the amount of pauperism and crime." *

of playing cards, and as well those, as 100 other grosses of playing cards, none of which were made within the realm, or imported within the realm by the plaintiff, or his servants, factors, or deputies, &c. nor marked with his seal, he had imported within the realm, and them had sold and uttered to sundry persons unknown, and showed some in certain, wherefore the plaintiff could not utter his playing cards, &c. *Contra formam praedict' literar' patentium, et in contemptum dictae dominae Reginae*, whereby the plaintiff was disabled to pay his farm, to the plaintiff's damages. The defendant, except to one half gross pleaded not guilty, and as to that pleaded, that the city of London is an ancient city, and that within the same, from time whereof, &c. there has been a society of Haberdashers, and that within the said city there was a custom, *quod quaelibet persona de societate illa, usus fuit et consuevit emere vendere et libere merchandizare omnem rem et omnes res merchandizabiles infra hoc regnum Angliae de quocunque, vel quibuscunque personis, et &c.* and pleaded, that he was *civis et liber homo de civitate et societate illa*, and sold the said half gross of playing cards, being made within the realm, &c. as he lawfully might; upon which the plaintiff demurred in law."

This quotation is also found in Beach (*loc. cit.*), but as there given it contains an astonishing number of errors.

* In State ex rel. *vs.* Standard Oil Company, 49 Ohio St.,

It is frequently stated by courts—as it was by Hume, and as it is continually by popular writers—that the monopolist may exact what price he pleases, following in this the dictum of the English court of 1602. Our exposition of the law of monopoly price shows that, strictly speaking, this is not true even in the case of an absolute monopoly. It being assumed that men are governed by rational motives, the monopolist, discovering that he has not control over demand and consumption, has to put upon the monopolized article or service that price which will induce a sale sufficient to yield him the largest gains. It is not necessary to enter into this at greater length at the present time. The outcome is that frequently the monopoly price is not so high as one would be at first inclined to anticipate. Very frequently it is relatively but little higher than it would be if the industry were competitive, and occasionally not at all higher. Some students and some spokesmen for monopolies, observing this, have represented the increase in price due to monopoly as something of little significance. There are, however, several reasons why we must regard this view as decidedly erroneous. First, we may take as a premise from which to reason deductively the familiar experience and common knowledge of men, thus taking as our basis that ground which served as a foundation for the English classi-

137, 187; Supreme Court, 30 N. E. Rep., 279 (1892). Quoted by Cooke in *Trade and Labor Combinations*, p. 97.

cal school of economics; and to this course there can be no objection, provided other possible lines of argument are duly considered. We appeal to the experience of men to-day. Is it found, so far as we may learn from observation, that when monopoly is really secured, monopolistic prices are advanced? It is believed that the answer returned by the unbiased will be, almost unanimously, yes.

We next make our appeal to history, and the utterances of history are clear and unmistakable. We have already noted the fact that the courts were so impressed with the high prices of monopolized articles that it became a judicial dictum that the monopolist could charge what price he pleased. For centuries, the courts of England and America have been under the impression that monopoly price means high price, and in a matter of this kind especial weight should be given to their utterances. Cases have come before them and they have had facts presented to them, so that in this particular they should know whereof they speak. Of course, an explanation of the theory of monopoly is an entirely different matter, and it does not at all follow that we should look to judicial utterances for that.

In the next place we observe the impression made by monopolies upon historians. Hume speaks about the prices of monopolized articles as exorbitant, and cites particularly the case of salt, the price of which had in some places been increased tenfold or more.

It would thus appear that historical experience warrants the belief that very generally those prices

of monopolized articles and services which yield the highest net returns are very decidedly higher than competitive prices. Dealing with human nature as we find it, we have no reason to suppose that it has so changed that the monopolist to-day will be more lenient in the use of his power over price than he has been in the past. Professor Alfred Marshall suggests, it is true, a willingness on the part of the monopolist to accept, from purely philanthropic motives, a lower price than he could successfully ask, and thus to share his gains with society at large.* But when and where has this happened? We have no large experience in the United States which would substantiate that view. We might not be disappointed should we hope that the monopolist would contribute for a public purpose some of the gains of monopoly, but in our public policy, if the monopolist is left to his own devices, we cannot hope that monopoly prices will

* In his *Economics of Industry*, it is stated that one reason why a monopolist may lower his price is his concern "for the well-being of the consumer," since a very little sacrifice on the part of the monopolist will frequently add very greatly to the gains of the consumer. After mentioning two cases of prices lowered by the monopolist, he adds: "In some other cases the owners of a monopoly will take a price that affords them less than the greatest net revenue, because they are willing to sacrifice themselves a little in order to benefit the consumers of their goods much." This is in book v., chapter viii., section 2, of the edition of 1892. This expression of opinion appears to be omitted from the corresponding chapter of the third edition of 1899.

be less than the highest which yield the largest net returns.

A statistical investigation of monopoly prices suggests itself, but we have no body of statistics bearing upon this question sufficiently large and accurate to tell us all that we would like to know. We may, however, say that such researches as we have had indicate that in the case of monopoly prices of all important articles and services, the price which will yield the largest net returns is far higher than the competitive price, in cases where it is possible to have a truly competitive price; and that in the case of those services which are of such a nature that it is impossible to tell what a competitive price is—for example, municipal monopolies—the price will be far higher than that yielding normal returns. It appears to be a moderate statement that monopoly price will frequently go one hundred per cent. above the competitive price.* The case of baggage transfer and transfer of passengers in Chicago has been cited. Street-car traffic

* The De Beers Mining Company controls the four great diamond mines in Kimberley, South Africa. It has closed two of the mines, and by thus restricting production has kept the price of diamonds at twenty-three shillings per carat, although before the combination the price had fallen as low as eighteen shillings and sixpence per carat. The increase in price indicated is nearly twenty-five per cent., and this was brought about by a partial monopoly in the case of an article ranking among the luxuries. See *The American Monthly Review of Reviews*, November, 1899, p. 550.

in our large cities may also be instanced. Such investigations as we have had would indicate that in every great American city a three-cent street-car fare, increasing the traffic very largely, would yield ample returns upon all the capital actually invested, and would highly remunerate all the labor power and managing capacity employed. Yet the usual rate is higher by sixty-six and two-thirds per cent. This is an enormous surplus, so far as the single fare is concerned, preventing many who most need the service from riding; and it is an enormous surplus also, so far as the aggregate is concerned, yielding unearned wealth amounting to millions upon millions in the great cities of our country.*

But even if the price is raised only a little above the competitive price, it is a serious matter. The result is a privileged class of monopolists in the community, who, in the general struggle for existence and economic well-being, perpetually have at least a slight advantage on their side. Now, in the struggle for existence in human society, as well as in the animal and vegetable world, a slight advantage always turned on one side is a matter of the utmost moment, and is sufficient to be decisive in domination and survival.

*Reference on this point may be made to the volume, *Municipal Monopolies*, edited by Professor E. W. Bemis, which gives the results of the most careful investigations made up to the present. Much interesting material is also found in the quarterly publication, *Municipal Affairs*.

Mention is also made by the courts of deterioration in quality, and it is believed by the writer that the point is well taken. We see the natural operation of monopoly in this particular whenever it has secured its position. Reliance is placed upon the monopoly instead of upon excellence of work, and it is only in the transition period that the contrary is likely to be the case. We have to do here with well-known principles of human nature. It proves nothing, but affords an illustration which many a reader can duplicate from his own experience, when the writer states that he is obliged to use daily a monopolized article of which the price has been raised more than fifty per cent., while at the same time the quality has deteriorated as shown by laboratory tests. No mathematical proof can be afforded of the position taken by the courts, but reference can be made to common experience and to the well-known principles of human nature, warranting, it is believed, the conclusion that only effective control can counteract this tendency of monopoly to furnish articles of inferior quality. This holds true both of private monopoly and public monopoly. The question is, Whence the control?

The third point made is one to which in recent discussions too little attention has been given, and especially was this noticeable at the Trust Conference held in Chicago. In the case of those businesses which naturally belong to the monopolistic field we have to accept the fact of monopoly and make the best of it. When we do this we secure

the largest amount of benefits with the smallest amount of evils. It is, however, a hardship when, by public or private favoritism, some are driven out of a business which naturally belongs to the competitive field. If a producer has established an independent economic existence, it is a grievous wrong to him to be forced out of it against his will through the brute force of monopoly, and not through the natural workings of competition. It is not sufficient that he should be paid a price for his business, even though the price be a fair one.

Moreover, we must not only consider the influence of monopolies in driving others from their own monopoly field, but—particularly when we are speaking of monopolies built upon favoritism—we must also consider their influence in oppressing those who produce the raw material or other products which the monopolies use. Much complaint is made, and apparently with justice, that in these cases we have buyers' monopolies which are oppressive to those who are called prime producers. Thus, the producers of crude petroleum feel themselves much aggrieved by the monopoly to which they offer their product, and while it would appear that its low price has been very largely something beyond the power of the monopoly in the refining of oil to control,* even so conservative a writer as

*The Standard Oil Company seem in a way to be between the upper and nether millstones. They must persuade the producers that they do what they can to keep up the price

M. de Rousiers leaves the impression that producers of crude oil are in the power of the monopoly, and

of crude oil, while they endeavor to convince the consumer that they have reduced the price of refined oil.

It is sometimes alleged by those standing near the producers and speaking for them, that the excessive gains of monopoly come exclusively from the depression in prices paid to the prime producers, who are made the beasts of burden of monopolists. It is argued that high prices to consumers would beget dangerous discontent, and that it is far safer to oppress the producers, whose dispersion into small groups renders united action on their part difficult. While our discussion does not warrant such a conclusion, the following quotation from an article in the *Petroleum Gazette* of May 27, 1897, entitled "Monopolizing Combinations *vs.* the Producer," does bring forward one direction in which monopoly will act whenever it has the opportunity:

"The interest of all aggregations of capital in restraint of open, free competition in the purchase, manufacture, distribution, and final sale of the products of industry to consumers is directly opposed to that of the producers of raw materials as well as that of those engaged in the varied branches of commerce which springs from the effort to satisfy their requirements.

"The corner-stone of all these combinations must be the control of the price of raw produce, and the extent of this restraint on prime markets is the measure of success in monopolizing any branch of trade. In the recent investigation of the Sugar Trust, Mr. Searles, its secretary, testified that by being the largest buyer his company had been able to keep down the price of the raw sugar, and thus to make the refined article cheap to consumers and its manufacture profitable to the trust. In all instances where combinations of capital have seized upon and become possessed of the avenues of distribution, the segregated producers of the raw produce have been forced to sell their output at prices which more than counterbalance

that this power has, in some instances at least, been used in an oppressive manner.*

Private monopoly has been regarded as something odious. The common law of England has for centuries pronounced against it, and the common law has been reinforced by statutes in the United States. History pronounces against monopoly, and the present deep-seated feeling against it, is largely a survival resulting from historical experiences. Human nature is so constituted as to afford decisive objections to private monopoly. The same old arguments against despotism which

the 'little economies,' 'the aggregation of brains,' 'the introduction of improved methods,' and 'the cheapened supply to ultimate consumers.' Between these two extremes the margin of profit to the combinations has been sufficient to enrich their stockholders and to furnish a fund to prostitute law in the aggrandizement and perpetuation of their restrictions on commerce.

"The edict of the Tobacco Trust goes forth, and the price for the tobacco crop responds; the Standard Oil Trust marks the price of refined either up or down, and at the same time directs its purchasing agents what they shall pay for the crude supply. If competition enters the field for raw sugar, for leaf tobacco, or for crude oil, the whole machinery of the combinations who assume to be Sugar, Tobacco, and Oil is put in motion to drive out the intruders, and this is usually accomplished by lowering ultimate markets and forcing prime markets to respond. Under all circumstances the producers are made the beasts of burden, and the revenues rendered necessary in the subordination of legislation, in the prostitution of courts, and in the manipulation of distributive tolls, become taxes on the producers, and are assessed and collected through reduced prime markets."

* See *Les Industries Monopolisées aux États-Unis*, chapter ii., on "Le trust du pétrole."

we have gone over again and again in political science until they have been thoroughly threshed out and conclusions have been reached for civilized society, hold equally against private monopoly. Political despotism is good in its government if we have a good despot. But we do not want despotism, because, on the one hand, we dare not trust human nature, and, on the other hand, we prefer to govern ourselves. We may make some mistakes, but we have the satisfaction of governing ourselves, and we also have the development of intellect and character which proceeds from so doing. So, too, economic despotism has some advantages, doubtless, if the monopolists who exercise this despotism are good men; but we fear to trust human nature, and we wish self-government so far as may be in industrial affairs.* We observe also the insolence of

*The Supreme Court of Ohio in a decision of March 27, 1891, uses these wise words: "Much has been said in favor of the objects of the Standard Oil Trust, and what it has accomplished. It may be true that it has improved the quality and cheapened the costs of petroleum and its products to the consumer. But such is not one of the usual or general results of a monopoly; and it is the policy of the law to regard, not what may, but what usually happens. *Experience shows that it is not wise to trust human cupidity, where it has the opportunity to aggrandize itself at the expense of others.* The claim of having cheapened the price to the consumer is the usual pretext on which monopolies of this kind are defended; and is well answered in Richardson *vs.* Buhl, 77 Mich., 632. After commenting on the tendency of the combination, known as the Diamond Match Company,

private monopoly wherever it even begins to get securely on its feet. Representatives of a great monopoly said to a distinguished gentleman in Ohio in regard to an independent producer, "We are going to wind him up now very soon," and said it with positive glee. The same thing was said by the representatives of a monopoly concerning an independent dealer in the author's home city. A few months later that which had been predicted befell. Here again we deal simply with illustrations, and readers can verify the truth of what is said by their own experience and by their own judgments concerning human nature. It is on account of the odious character of private monopoly that the general conviction has been reached, both in England and the United States, that it is contrary to the principles of Anglo-Saxon liberty to allow it to go uncontrolled, and that the right to control has in both countries been placed beyond controversy by judicial interpretations of the common law. There is, then, only one question before us, and that is, how to exercise the control.

to prevent fair competition and to control prices, Champlin, J., said: 'It is no answer to say that this monopoly has in fact reduced the price of friction matches. That policy may have been necessary to crush competition. The fact exists that it rests on the discretion of this company at any time to raise the price to an exorbitant degree.'

"Monopolies have always been regarded as contrary to the spirit and policy of the common law."

State ex rel. *vs.* Standard Oil Company, Ohio State Reports, 49, p. 186.

Before we go further, however, it must be stated that the evils of monopoly exist chiefly in the United States. We hear much in these days about the trusts in England and France and other parts of Europe; but what is said in this particular is misleading. Why is it that there is no such thing as an agitation against trusts in these countries? Leaving out Germany, where there is some discussion of combinations of manufacturers and where some evils have been experienced from them, it is beyond controversy that there is little effort directed against trusts, so called; and even in Germany there is nothing which can be dignified by the name of agitation. M. de Rousiers speaks very clearly on this subject, and as what he says harmonizes with the most trustworthy information which the present author is able to secure, a quotation bearing upon this particular topic is here offered:

"In Europe as well as in America the phenomenon of the trust is possible. If in England there is no example of one, it is because the necessary artificial condition of monopoly is not found. The establishment of free trade has removed the abuses of state intervention in private industrial affairs, and public interests have been sufficiently protected by those who have had them in charge to avoid the confiscation of public services (public utilities) for the benefit of private citizens without guarantees and compensation.

"In France and in Germany the public services have been too jealously guarded to afford room for trusts,

but the same system of protectionism has furnished a favorable occasion for the establishment of trusts in private industry.

"Fortunately the natural but exceptional circumstances which we have observed meeting together in America in the case of the prosperous trusts are encountered more rarely in Europe. The sugar industry, which has been placed under an artificial régime by the enormous tax which rests upon its consumption, added to bounties upon exportation, furnishes us with the sole French example of a *de facto* monopoly in private industry. The Russian petroleum and Austrian petroleum are also considered as objects of monopoly. Finally, the mining and iron- and steel-working industries have given rise to numerous attempts to form agreements, of which some have been crowned with success. . . .

"In other words, the trusts are not essentially an American phenomenon. If we suffer less in Europe, it is not because we are less advanced in industrial evolution. England, which leads in this movement, is precisely that one of the great European nations which is most free from them; it is especially because we have in Europe a less degree of confusion of public and private interests."*

* *Les Industries Monopolisées aux États-Unis*, par Paul de Rousiers, pp. 324–5.

It is gratifying to the present author to find agreement in so many points between M de Rousiers and himself. Perhaps this agreement has significance, inasmuch as it was reached by different methods and each author has worked independently of the other. The present author published the more important views concerning which there is agreement long before M. de Rousiers' work appeared, whereas

An instructive article appeared some time since in one of the leading German newspapers* in which it was stated that the reason why private monopolies like those in the United States did not exist to a great extent in Germany was that the railways there were State railways, and that all producers and dealers were treated impartially. The point to which attention is called is the statement that the non-existence in Germany of monopoly problems such as ours is something familiar to all and not requiring argument.

In recent years, however, a great deal has been said in the European press about one particular monopoly in Europe which, rightly or wrongly, has been found objectionable, and that is the Standard Oil monopoly. Objection has likewise been made, although apparently in less degree, to the Russian monopoly, which, it is said, is acting in harmony with the American monopoly. Vigorous efforts have been made to overcome the oil monopoly, and in this case alone, so far as the present writer is aware, has the movement against monopoly reached such proportions that it could be called an agitation.

The truth of the matter is, that the European trusts, of which we, in this country, have been hearing so much of late, are generally little else than ordinary combinations, not at all shutting out com-

the latter, following his own lines of investigation, has evidently reached his conclusions by independent processes.

* *Die Frankfurter Zeitung*.

petition, and simply part and parcel of the general movement in the direction of an enlargement of the business-unit, and they are usually discussed in European countries as belonging to the subject of industrial combination.

But the author would not be misunderstood. The causes which produce monopoly in the United States are capable of producing monopoly in other countries. The only question is, To what extent are the same causes in operation in the countries of Europe? M. de Rousiers has already mentioned the sugar monopoly in France. The manufacture of sugar is also approaching the condition of a monopoly in Germany, and considerable complaint appears to have arisen.* It is taxation which has established the sugar monopoly in Germany. The German producer is protected by customs duties from competition with foreign producers, and, in addition to this cause of monopoly, in itself scarcely sufficient, there is an internal-revenue taxation of monopoly which is so framed that it is difficult for new refineries to gain a foothold. After a refinery has been in operation for a year it pays only a proportionate share of the sugar tax, but up to that time it has to pay a sum on each 100 pounds which is decidedly in excess of its share of the tax after apportionment. The old refineries pay an apportioned tax. In other words, a certain sum to be

*See, for example, "Das deutsche Zuckermonopol," *Wochenblatt der Frankfurter Zeitung*, April 28, 1899.

raised is distributed among them. The new refinery pays a definite sum on each 100 pounds, and this is higher than the rate under apportionment.

The Russian government is also interested in a sugar monopoly, and actually assists in its development, although it has done a thing which to an American seems curious. When the price of sugar once rose to a high point the Russian government imported a large amount of sugar, and sold it at a price which put down and kept down the price of sugar to a price established by the government. There are some who have recommended such a measure as this to repress the excesses of monopoly.

Unskilful governmental taxation is everywhere capable of producing monopoly.

A limited supply of natural treasures will produce a monopoly in Germany or France just as readily as in this country. The greatest German State—Prussia—passed a law in 1865 which separates the ownership of treasures below the surface of the earth from agricultural property, rendering the former public property. The effect of this measure, if properly carried out, is to secure any surplus value from mining for public use, and also to render control over mining operations, even when privately conducted, more effective. It would not, however, remove the naturally favorable condition for monopoly.

Patent monopolies, and monopolies based upon secret processes, may be anticipated in every modern country.

The causes which do not operate to the same extent in favor of monopoly in countries like France, England, and Germany are the favoritism of railways and the dishonest management of corporations. There is also a conscious effort in those countries so to regulate patents that they may interfere as little as possible with industrial liberty while accomplishing their main purpose. About this a word will be said later.*

The efforts of the great countries of Europe have been either to control monopoly or to prevent it by general indirect measures. Perhaps the most important discussion of industrial combinations ever held in Europe was that which took place at a meeting of the German Union for Social Politics in Vienna, in September, 1894. The meeting was attended by economists of the first rank, and the discussion was an able one. Anything resembling the cry "Smash the trusts!" was not heard. The proposals for reform related to more effective control over large-scale business, especially whenever it develops any monopolistic tendencies. But the general emphasis was upon the concentration of production. Reports upon various combinations (*Kartellen*) were made, but they do not, in the opinion of the author, contain any disclosures not in harmony with the theory of the present work.†

One of the best-known and most recent essays

* *Infra*, pp. 266–7.

† See *Schriften des Vereins für Socialpolitik*, vols. 60 and 61.

on concentration in England is that by Mr. Henry W. Macrosty,* entitled "The Growth of Monopoly in English Industry." This essay presents many interesting facts concerning industrial combinations, but it fails to disclose any considerable growth of monopoly in manufactures. The concentration of production is sufficiently proved, and the belief is expressed that this concentration will terminate in private monopolies, which it is recommended should first be stringently controlled and afterwards taken over by the State and made public enterprises.

It has been stated that the problem with which we in the United States are really dealing when we speak of the trusts is, among other things, a problem of industrial concentration. We have already discussed this problem in some of its salient features. Some of the evils which are connected with industrial concentration are such as are naturally incident to a period of rapid growth and readjustment, like that through which we have been passing. Some of the evils, like child-labor, which are commonly mentioned in this connection, are not peculiar to large-scale production, and are furthermore being successfully overcome. Other evils will find treatment in connection with the discussion of private corporations.

The third problem involved in a popular discus-

* The essay appeared originally in *The Contemporary Review* (London), March, 1899. It was subsequently enlarged and printed as a tract by the English Fabian Society in September, 1899.

sion of trusts is the quite distinct one of wealth-concentration, and that belongs mainly to another portion of the general work on *The Distribution of Wealth.* It has been generally admitted by philosophers and statesmen of all ages that there is danger in wealth concentration, on account of the vast power which enormous fortunes bring to their owners. There is scarcely any thoughtful person who, at least when he is off his guard, will not make confessions which show that he regards mammoth fortunes as dangerous to those who own them, and still more so to their children.* From the time of Aristotle onward it has been held especially dangerous in a country with a republican form of government that the extremes in society should be very widely separated with respect to property. It is generally held that it is better in every way that there should be a more wide-spread diffusion of wealth and of its responsibilities. The

* The following extract from the daily press furnishes an illustration:

"Young Cornelius Vanderbilt has designed a new kind of locomotive, which, upon being tried, proves to be quite an improvement over the railroad engines now in use. Mr. Vanderbilt was disinherited because he married against the wishes of his parents, so he got a job in the mechanical department of the New York Central Railroad and went to work for a living. His experience shows that it might be a good thing if more rich men would give their unfortunate boys a chance."

This may, or may not, be a true statement so far as this particular case is concerned; with that we have nothing to do.

connection between wealth-concentration and monopoly has already been mentioned, and it is this relationship which has especial interest for us in the present discussion. A few further words about this point will be found in the treatment of remedies.*

Other countries than the United States have attempted various indirect methods to prevent private monopoly; but this country alone has directly and immediately attacked the problem and attempted to prevent the existence of private monopoly. We have tried legislative prohibition, and even constitutional prohibition of monopolies, especially of the so-called "trust monopolies." Dr. Ernst von Halle, in his *Trusts, or Industrial Combinations in the United States* (pp. 17–18), says:

"By the end of 1894 the federal government, twenty-two states, and one territory, had enacted anti-trust laws. The first provision in this direction was introduced in the Constitution of Georgia in 1877: 'The General Assembly shall have no power to authorize any corporation to make any contract or agreement whatever with any [other] corporation which may have the effect, or be intended to have the effect, to defeat or lessen competition in their respective business, or to encourage monopoly; and all such contracts or agreements shall be illegal and void.' This was not, of course, originally directed against trusts, but against railroads, but it could afterwards be readily applied to trusts. Anti-trust laws were passed in 1889 by Kansas, Maine, Michigan, Missouri, Nebraska, North Carolina, Tennes-

* *Infra*, pp. 264–6.

see, Texas, and the territories of Idaho, Montana, and North Dakota; and the new states of Washington and Wyoming introduced provisions in this direction into their constitutions. In 1890 anti-trust laws were passed by Iowa, Kentucky, Louisiana, Missouri, and South Dakota. In 1891 Kentucky and Missouri introduced similar provisions into their constitutions. In the same year Alabama, Illinois, Minnesota, and the territory of New Mexico; in 1892 New York and Wisconsin legislated to a like effect; while in 1893 California forbade combinations in live-stock, Nebraska in coal and lumber. Amendments to these laws were passed in Missouri and Tennessee in 1891; Louisiana in 1892; Illinois, Minnesota, and South Dakota in 1893. The United States Act was passed in 1891, and the tariff act of August, 1894, makes some general provisions of the same character as to the regulation of prices. No anti-trust legislation was passed in 1894 in the several states."

We have here a first period of vigorous legislation against trusts, beginning about 1889, followed by a period of quiet; now we are again in a period of active trust legislation. Bills have recently been introduced into several state legislatures. One in the Wisconsin legislature was declared unconstitutional and failed to receive the approval of the governor. New York and Indiana introduced bills into their legislatures during the last sessions, and in the former state a bill has been passed which has attracted some attention. Legislative investigations have been conducted by New York and Ohio, and elsewhere the subject has been agitated. A

noteworthy convention called to consider the subject of trusts was held in Chicago under the auspices of the Civic Federation, September 13–16 of the current year (1899), and another less notable one, consisting of a few governors and attorneys-general, was held the week following in St. Louis. The problem has never been more actively agitated than at the present time. It is quite probable that a great many more anti-trust laws forbidding combination will be passed in the near future. It would be well, however, for those who desire to remedy the evils of which complaint is made to pause for a time before recommending new laws, and to inquire into the actual results of past legislation. It is instructive to read on the subject of trusts the newspaper utterances which appeared in the latter part of 1892. A number of these lie before the writer. One is headed, "Black Eye for the Trusts—Important Decision handed down in Chicago"; another has the heading, "Trusts are Illegal—Strong Decision of the New York Court of Appeals"; another clipping, which appeared somewhat earlier in the year, tells us that "the Standard Oil Trust has resolved upon dissolution," in obedience to the law; in November of that year an editorial which appeared in a prominent paper expresses the hope that President Harrison, making use of the Federal Anti-Trust Law, "will deal a death-blow to trusts." *

* Many similar headings can be found in copies of news-

Comment on these utterances of the press is scarcely necessary to-day. If there is any serious student of our economic life who believes that anything substantial has been gained by all the laws passed against trusts, by all the newspaper editorials which have thus far been penned, by all the sermons which have been preached against them, by all the speeches of politicians denouncing them, this authority has yet to be heard from. Forms and names have been changed in some instances, but the dreaded work of vast aggregation of capital has gone on practically as heretofore. The writer does not hesitate to affirm it as his opinion that efforts along lines which have been followed in the past will be equally fruitless in the future.

All of these remedies which it has been proposed to try are, in the author's opinion, faulty and indeed deplorable; should they become so thorough and so drastic in penalties as many have recklessly proposed, the results might be nothing short of a

papers issued during March, 1897. The headings of three which lie before the writer are as follows: No. 1. "POOLS ARE HIT HARD.—UNITED STATES SUPREME COURT UPHOLDS SHERMAN ACT.—DECISION IS A SURPRISE.—VIRTUALLY DECLARES ALL TRAFFIC AGREEMENTS ILLEGAL. — COMPETITION WILL BE OPEN. — RAILROADS WILL BE AMENABLE TO INTERSTATE COMMERCE COMMISSION.—MANAGERS GREATLY CONCERNED." No. 2. "TRUSTS IN A PANIC.—TOBACCO COMBINE MAKES THE FIRST IMPORTANT SURRENDER," etc. No. 3. "TRUSTS BUSTED.—FAR-REACHING EFFECTS OF THE SUPREME COURT DECISION."

national calamity.* The true remedies must not be direct, but indirect. If a law is passed forbidding combination, the law itself shows its faulty character and that it was framed and passed by men who, if sincere, did not understand the nature of the problem with which they were dealing, and hence attacked not causes, but symptoms.

When one contemplates all this legislation and bears in mind the ineffectiveness of the federal statute, except against labor unions, one sees the force of M. de Rousiers' sententious assertion, that our law has been strong for the weak and feeble for the strong.†

The effect of constitutional provisions and legislative enactments against trusts thus far has been to increase centralization and to strengthen monopoly rather than otherwise. It was possible to forbid various corporations to put their business into the hands of a common board of trustees, and thus to abolish the old type of the trust. This, however, was going very far, and would seem to be

* The following communication to a well-known newspaper furnishes an illustration of the extremes to which some thoughts are going, as well as their futility: "Would not a statute like the following be a good thing for trust-killing?—*viz.:* An act that no person shall vote, hold office, or sit on a jury or obtain any writ, warrant, or legal process who does not first make oath that he is not interested directly or indirectly in the profits of any trust or similar organization. If that would not kill them, what can?"

† See *Les Industries Monopolisées aux États-Unis*, p. 124.

depriving persons of one of the rights incident to property. It has not, however, been found possible to prevent corporations from selling their business outright to a new corporation, which thus absorbs them, and it is difficult to see how this can be prevented if private property, as we now understand it, is to be maintained.*

Another proposal is the limitation of incorporation and the refusal of the corporate form of business except to those who are engaged in furnishing public utilities—that is to say, engaged in businesses like railways and gas-works, which fall under the classification of natural monopolies, belonging to our second group. It has not appeared clear from any previous discussions of the subject what precise thing it is proposed should be accomplished by the limitation and refusal of incorporation; whereas many evils would be the inevitable outcome. It

* The recent decision of the Supreme Court of Illinois in the so-called Glucose Case, forbidding the sale of the property of one corporation to another with the purpose of suppressing competition, comes too late for extended comment in this place. The author does not believe that the decision will prove at all effective in the accomplishment of the purpose of anti-trust legislation. It may hereafter be interesting, however, to remember this heading of a long article which appeared in one of the organs of the Farmers' Alliance and the Industrial Union: "THE SUPREME COURT OF ILLINOIS MAKES A VERY RADICAL DECISION WHICH KNOCKS THE TRUSTS 'GALLEY-WEST.' ALL THE TRICKS AND SUBTERFUGES BRUSHED ASIDE, AND THE PEOPLE TRIUMPH."

should, first of all, be considered that the corporation has made its way in all lands of industrial civilization. In the struggle for existence it has shown its fitness for survival among all business forms. We may suppose, then, that it has peculiar advantages. If so, why should it be refused? Why should we be forced to do business in some other way when the corporate form is better? Is it not taking a step backward if we refuse to utilize improved business methods?

The advantages of private corporations have been described so frequently and are withal so obvious that it is scarcely necessary to dwell upon them here. The private corporation makes possible the massing of large quantities of capital for great enterprises; the gathering together of sums, large and small, into aggregates of any desired dimensions. The property is divided into shares of stocks and into bonds, and thus there may be widespread participation in vast enterprises, giving us a diffusion of property with concentration of production. The limitation of risk is also an advantage, and, if properly guarded, gives no just cause for complaint. I may be willing to invest $500, but no more, in some enterprise which, if successful, will result in important social as well as individual benefits, but which is attended with risks, as are most new undertakings. If it is known that I invest precisely $500, and no more, no one is wronged, so far as I am concerned. It is thus that great natural resources have been opened up. The corporation,

on account of the continuity of its existence, avoids many accidents to which *natural* persons are exposed, and this feature also has its marked advantages. A century and a quarter ago Adam Smith concluded that on account of the keener action of self-interest in individual businesses and partnerships, corporations could not succeed except in the case of those engaged in transportation and a few other enterprises. But everywhere the corporation has gone on winning its way, and has absorbed a very large proportion of the business of the civilized world. Moreover, if we examine into the discussions of private corporations in modern countries we find, to be sure, proposals of reform more or less far-reaching; but, with the fewest exceptions, we find it nowhere suggested by thoughtful and well-informed persons that private corporations should be abolished. As has been said, it has been suggested by a few in this country that private corporations should be abolished, with the exception of those engaged in providing public utilities. Curiously enough, however, it is precisely in the case of these undertakings that we find a conviction shared by many persons of intelligence and large experience that incorporation should be refused; and the movement which seems to be most promising in the direction of the abolition of private monopoly is the replacing of private corporations in these undertakings by public ownership and management.

But if this suggestion of the limitation of incorporation should prevail, who would gain anything

thereby ?* It would limit participation in businesses of large magnitude, and also very largely in many smaller enterprises, and it would bring about the closer union of rich people; and as the poor would of necessity be shut out by the risks and responsibilities attendant upon a large proportion of the business of the world, the general tendency of the movement would be monopolistic.†

Among other remedies suggested is that of taxation. This need not, however, detain us long. Arguments which have already been advanced in this book show that a discriminating tax, like that which Missouri has recently passed ‡ against depart-

* An item in the daily press tells us that what was the "Deering Harvester Company" has become a partnership. No one has as yet described the public gain resulting from the change.

† The author's views concerning private corporations find further elaboration in three articles written by him entitled, respectively, "The Nature and Significance of Corporations," "The Growth of Corporations," and "The Future of Corporations," which appeared in HARPER'S MONTHLY MAGAZINE in the issues for May, June, and July, 1887.

‡ See *Laws of Missouri*, 1899, pp. 72 *et seqq.* This law, which went into effect September 16 of this year, divides into classes and groups the goods which mercantile establishments of all kinds handle. Thus, the group Dry Goods embraces classes one to eight, inclusive; the group Clothing embraces the classes from eight to fifteen, inclusive, with the exception of class twelve; the group Hats and Caps includes classes ten, twelve, fourteen, and fifteen, which, with the exception of class twelve, are also included, as may

ment-stores, is socially injurious, as it tends to prevent the development of business forms which are most advantageous. In so far, however, as existing taxation discriminates against the small producer — and it does so to a very considerable extent — the remedy suggests itself. The reform of taxation has a general importance, and here as elsewhere it will be helpful. One or two special applications of taxation are recommended by the author as among the remedies for the evils of the existing situation. Taxation, however, can only be looked upon as one among other remedies, and its relative significance may easily be over-estimated.

We turn our attention now to some of the more conservative suggestions, passing over them hastily, in order to preserve due proportion in the present volume. In some quarters it has been suggested that natural law furnishes a remedy, inasmuch as under natural law, according to the allegations of those who make this proposal, the return on capital

be seen in the group Clothing. Other groups, with the included classes, are similarly arranged. The law provides that in cities having a population of fifty thousand or more, the proprietors of stores employing fifteen or more persons shall pay a license fee of not less than $300 nor more than $500 for the sale of "every class or group, or for any particular article of any class or group mentioned in the application for such license, being in addition to the class or group" which the proprietor may choose to regard as the basis of his business. For the sale of this one line of goods no license-fee is charged. The law at least gives promise of long litigation.

tends to fall continuously in proportion to the return for present labor and enterprise, so that those who are at any given moment engaged in the world's work enjoy a constantly increasing advantage over those whose dependence is upon capital accumulations resulting from past efforts. This is a return to the optimism of Frédéric Bastiat, whose writings attracted considerable attention about the middle of this century. His economic theories have generally been rejected by science. Without now entering at length into a discussion of this theory,* attention may be called to the fact that many features of significance are overlooked by its advocates. We have to consider not merely the percentage of return on capital, but the increase in quantity of capital. We have to consider also not merely the returns on actual investments of capital, but the returns to monopoly, which are reflected in inflated capitalization as distinguished from actual investments of capital. We have also to consider that portion of the income of society which goes to the owners of natural opportunities under the name of rent. Again, we do not find from experience that we live in a kind of a world in which evils cure themselves. They are cured by intelligent and well-directed effort on the part of human beings.

By others a sufficient remedy is found in poten-

* This will be done elsewhere in the author's work on *The Distribution of Wealth.*

tial and residual competition. It is not altogether clear what it is hoped that potential competition—namely, competition which may come into existence; and residual competition, namely, survivals of competition in centralized business—will accomplish. Where we have to do with real monopolies, competition in its true sense is non-existent, and the causes which produce monopoly are relied on to continue that monopoly. No evidence has been adduced of the sufficient action of potential competition in the case of monopoly. The spirit of monopoly, even when it fears attack, is expressed in the injunction, "make hay while the sun shines." Take as an illustration the case of the gas-works in Baltimore. There have been five or six attacks upon these works by new companies. It might be supposed that these potential raids—for that they are, rather than potential competition—would have kept the gas-works in adequate check, and would have given the people of Baltimore cheap and good gas. Such has not been the case, however. At the present moment it is safe to say that it is not upon the excellence and cheapness of its product that the existing gas company relies to prevent a raid so much as it is upon the legislative checks standing in the way of such a raid, and also upon the growing popular perception of the futility of attempted competition in the gas business. Numerous illustrations are also afforded by the railway history of the United States. The potential existence of the West Shore and Nickel Plate railways

was not sufficient to keep down the earnings of the New York Central & Hudson River and Lake Shore & Michigan Southern railways to the level of competitive business; nor was the potential existence of these railways sufficient to secure an altogether satisfactory treatment for those who were obliged to make use of the service of the old lines.

But there are cases in which we can rely upon a combination of residual and potential competition, and possibly when the arguments of Professor John B. Clark, the most scholarly advocate of potential competition, are analyzed, they do not mean any more than the present writer is prepared to admit.* In the case of a business which is not a natural monopoly we may have a large combination controlling a great part of the production of some article. Professor John Graham Brooks, at the Chicago Trust Conference, described the English bedstead trust, which manufactures the larger part of the bedsteads used in England, although it appeared that some residual competition is left in England, and that the trust is still exposed to international competition. Now if we have combinations of this sort, which have been formed without any favors, and under full and free competition, as the result of excellence of work and low prices, potential and residual competition is sufficient. The old enterprises which still survive will quickly enlarge their

* The theories of Professor Clark will receive fuller treatment in that portion of the present work dealing with "Competition," as well as elsewhere.

production if the combination furnishes inferior or high-priced work, and there is also a possibility of new enterprises availing themselves of openings made by the failure on the part of the combination to maintain excellence and cheapness.

This suggests another point of which a good deal has been made—namely, the accumulation of new capital.* The accumulation of capital is going forward apace, and outside the proper and natural field of monopoly it is a tremendous force making for competition when open opportunities are maintained. In the case of true monopolies, however, new accumulations of capital beat in vain against their doors, and, driven off, return to the competitive field, only to reduce still further the gains in competitive industries.

Another line of suggestion is this: Let us await fuller knowledge and do nothing at present. This sounds safe, and at first appears to be scholarly. We are told that we should first know all that it is possible to know about the great trusts, and that when we have the details spread before us, then we may act. But when is that time coming? It is a general truth that we have fulness of knowledge only about dead institutions. But social forces

* Professor Franklin H. Giddings, of Columbia University, brought this point forward forcefully in the work which he wrote jointly with Professor J. B. Clark, entitled *Modern Distributive Processes*, and it was also strongly emphasized by Mr. Bourke Cockran at the Chicago Trust Conference.

operate continuously, and while we are doing nothing, they are producing their results. To do nothing means simply to let the immense blind social forces now at work operate without interruption and bind us more securely.

It has been one of the chief faults of English economics that, so far as public action is concerned, it has insisted upon a policy of waiting. It has told us that we must do nothing until harm has come from private action. The London water supply in private hands shows the result of this policy. For more than two generations it has been generally admitted that private control of this vital public need is a great evil, but the evil has become so deeply and firmly rooted that, until the present time, it has not been possible to abolish it. A still better illustration is afforded by the concentration of wealth in England, which is traceable very largely to causes that were in operation during the reign of George III. During the past fifty years England has been trying to remedy the evils which have resulted from mistakes made during the preceding fifty years, but she has as yet by no means succeeded.* Similarly, a very brief period, beginning with the Civil War—a period probably not exceeding twenty-five years—is very largely responsible for the excessive centralization of wealth in this country,† and for many

* See Spahr's *Distribution of Wealth*, part i., chapter i.

† The author has in mind among other things the character of taxation, the financial methods of railway con-

evils which it will take more than one generation to overcome. It is the office of science to foresee evils and to prevent them, as well as to remedy them when they have occurred.

On the other hand, we have already seen in this country the effect of that reckless action which results in evil. What we must do, then, is to go ahead—and go ahead as quickly as possible—but by all means in the right direction.*

Turning now to the remedies which the author would propose, mention may first of all be made of education. We must have both general education and special education: general education, to fit men better to fight the battle of life; and special education in economics, giving instruction concerning

struction and management, and the issues of depreciated paper currency.

* Professor Marshall in one place uses words which show an appreciation of the importance of quick action in the solution of economic problems, for in the closing paragraph of his address on "Some of the Aspects of Competition," delivered before the Economic Science and Statistics Section of the British Association at Leeds in 1890—we find the following timely utterance: "Every year economic problems become more complex; every year the necessity of studying them from many different points of view and in many different connections becomes more urgent. Every year it is more manifest that we need to have more knowledge, and to get it soon in order to escape, on the one hand, from the cruelty and waste of irresponsible competition and the licentious use of wealth, and on the other from the tyranny and the spiritual death of an iron-bound socialism."

the nature of monopolies and the problems to which they give rise.

We take up next the problem of natural monopolies, those admitted to be such because of properties inherent in the business. The author has in mind especially railways, telegraph lines, telephones, lighting-works, water-works, etc. What are the objects to be accomplished by society in its relation to these businesses, which are admitted to be monopolies? As they are monopolies, the control which competition exercises over other businesses is in their case absent. The problem, then, is the abolition of favoritism: favoritism with respect to the income of this kind of property must be abolished—abolished so that surplus value may not fall into private pockets. Those who engage in businesses of this kind must, with respect to returns on capital and enterprise, be placed on the same footing with others. They must be content with normal returns upon actual investment. Moreover, it must be borne in mind that not all capital in the industrial field can count on any returns whatever. It is only capital invested with normal prudence and skill which may count upon normal returns. If those engaged in these businesses are not placed on the same footing with others they constitute privileged classes of monopolists. Franchises gotten for nothing and sold for millions of dollars are simply one of many evidences of the existence of these privileged classes. If private monopoly is to be allowed to continue in these

fields some method must be devised, through taxation, through regulation of franchise grants, and otherwise, which will place on a footing of equality those engaged in these monopolistic businesses and those engaged in competitive businesses. No regulation of this sort has as yet been devised, but many things suggest themselves. It has been hoped that in the case of street-railways the sale of franchises would eliminate the private receipt of surplus value; but where it has been attempted in New York State it has not cured this evil. By way of reduction and regulation of rates, more can be accomplished than has hitherto been effected. But to both reduction and regulation of rates, having in view the elimination of surplus value, there has been strenuous resistance, and the cases which have been fought out in the courts have not thus far given much promise of relief.

It must be brought about that no favoritism shall be shown by these monopolies in their treatment of others. This is one object of the Interstate Commerce Commission. In this case, too, the results thus far achieved are not reassuring, and the last report of the Commission bears a pessimistic tone.*

* The following is a quotation from pages 5 and 6 of this report—the twelfth—bearing date January 9, 1899:

"In previous communications to the Congress, especially those of more recent date, attention has been called to the vital respects in which the act to regulate commerce has proved defective and inadequate. Some of its provisions were early seen to be imperfect, while others were so uncertain or ambiguous as to give rise to pro-

We have, however, simply the two alternatives—on the one hand, public control of private property; and, on the other, public property with public management, the latter alternative necessarily carrying with it social control.

Is the first plan—namely, that of public control of private corporations—possible in general, and especially is it possible in a democratic society like ours? The first difficulty which suggests itself is this—the attempt to secure a union of antagonistic principles. Private property is in its nature exclu-

tracted litigation, resulting finally in authoritative construction by the Supreme Court of the United States. The Commission has taken much pains to explain the various questions that have thus been decided and the effect of these adjudications in defeating the purposes of the act. To state that the law in its present condition cannot be enforced is only to repeat what has already been said. Until further and important legislation is enacted the best efforts at regulation must be feeble and disappointing.

"This subject was fully discussed in our last annual report, and we are unable to add anything to the presentation then made. In that and previous reports we have not only set forth in general terms the necessity for amending the law, but have formulated and proposed the specific amendments which appear to us positively essential. With the renewal of these recommendations no duty of the Commission in this regard remains undischarged.

"Meanwhile the situation has become intolerable, both from the stand-point of the public and the carriers. Tariffs are disregarded, discriminations constantly occur, the price at which transportation can be obtained is fluctuating and uncertain. Railroad managers are distrustful of each other, and shippers all the while in doubt as to the rates secured by their competitors. The volume of traffic is so unusual as to frequently exceed the capacity of equipment, yet the contest for tonnage seems never relaxed. Enormous sums are spent in purchasing business and secret rates accorded far below the

sive, and the proprietor's control of his property under general regulations is one of its incidents. The individual and social benefits of private property come largely as the result of a free hand in its management. But in the public control of private property we retain private property, and yet take away from it that measure of control which is one of its natural incidents. It is a very serious question whether these two antagonistic principles can thus be reconciled. One inevitable result is a struggle of interests, with consequent political corruption and class arrayed against class. Those

standard of published charges. The general public gets little benefit from these reductions, for concessions are mainly confined to the heavier shippers. All this augments the advantages of large capital and tends to the injury, and often to the ruin, of smaller dealers. These are not only matters of gravest consequence to the business welfare of the country, but they concern in no less degree the higher interests of public morality.

"The conditions now widely prevailing cannot be better illustrated than by reference to investigations of the Commission during the last year, an account of which appears in the following pages. These are not isolated and exceptional cases; their counterpart may be found in many localities. The facts thus brought to light carry their own comment, and nothing said by us can add to their significance."

In this connection a personal experience may not be without interest. The author was a member of a society in which there at one time arose a discussion as to whether or not rebates were still paid to shippers by the railways. After the debate had continued for some time, one gentleman present—a railway official—quietly remarked that he had spent the day in paying rebates!

whose private property it is attempted to control are bound to resist the attempted control which, however just it may be, they will regard as unjust; and to resist it means to enter politics in order to control those agencies which are designed to control them. In this way we have the most powerful classes using politics to promote their private ends.

The problem which is thus presented is difficult anywhere; yet in a country like Germany, with its strong and highly trained governing class, it can be understood how a moderate measure of success can be attained in this line; but how is it possible in a country like the United States?

Property gives strength. Have we, or can we have, a class sufficiently strong to control those owners of immense property who are engaged in monopolistic undertakings? It is frequently observed that those who are to be controlled exhibit a strength superior to that of those who are to control them. How helpless against a combination of railways is the city of twenty-five thousand inhabitants when struggling to do such a seemingly small and entirely right thing as to provide gates at grade railway crossings. The writer has one case in mind. The very modest efforts of the city were met with the threat that the railway shops would be removed to a village some thirty miles distant and in an adjoining state. Even the city of Chicago has had a mighty struggle, continuing for years, in its efforts to protect life at railway crossings. At one time

it was proposed by the railways to leave Chicago and build another city in adjacent territory to escape what was regarded by the railways as oppression on the part of the city. A former editor of the *North American Review* even suggested to the present writer that he prepare an article in regard to what would be the outcome of such action on the part of the railways.

Apart from the question of the simple difference in economic strength as between the contesting parties, we have the question of skill on the two sides. Now skill is most naturally acquired in the management of property. It is almost inevitable, then, that those who are to be controlled should be in possession of the superior skill. Contrast in this particular the helplessness of the ordinary municipal council, even if comprised of entirely honest men—and this is granting a great deal—with the trained skill exhibited by the combination of street-railway interests with which it may have dealings.

There is, indeed, a possibility that we may have a growth of purity in our political life, and there is every reason to hope that such may be the case. There is also going forward a growth in enlightenment, and it is doubtless conceivable that we may develop in the end a class sufficiently wise and strong to control powerful monopolies owning a third or a fourth of all the wealth of the country. It is possible also that a union of local, state, and national agencies may give us a combination sufficiently strong to hold in check these vast aggrega-

tions of men and capital. A prudent man must judge for himself in regard to the probability of such an evolution.

Public ownership with public management renders control easy, because it is in the very nature of public property that it should be publicly controlled. Can we, however, find a class of office-holders wise enough and good enough to manage the monopolistic businesses of modern times? About this there can be no doubt. There are men wise enough to manage these businesses; these men are now very largely employed in such management, and they could be retained under public ownership and management. There is also sufficient virtue in the American people; and of this we have abundant evidence. Quite another question, however, is this one: Can we trust to the wisdom of the people to select and to give continuous employment to this class of men who are sufficiently wise and strong for the management of these businesses? We come, then, to the question as to what developments of the civil service are possible and probable.

We frequently notice that public work improves as its importance increases, and as public employment rises in dignity it will naturally attract a superior class of men. A separation of public and private interests also—such as would be brought about by the public ownership of natural monopolies—would array on the side of good government strong classes who are now acting against good government.

On the other hand, we observe that when great waves of political passion arise, such as the money question produced in 1896, even friends of civil service reform have justified the partisan use of the civil service. We observe also that the platform of a great political party declares for a large increase in governmental activity, and at the same time expresses little sympathy with civil service reform. But other platforms which have gone still further in their demands for public activity have, as a rule, coupled these demands with a further demand for a stable and improved civil service.

All this carries with it as a part of the solution of our problem a new way of looking at government. The evolution of society has made the old idea of civil government entirely inapplicable to present conditions. As our life is complex, our government must be elaborate. This is in the very nature of things, and cannot be avoided. The development of control as opposed to public ownership does not simplify, but rather complicates government, and renders it not easier, but more difficult, than direct public ownership and management of monopolistic businesses.

Whatever we do, we must recognize that social evolution has brought us problems which in their very nature are difficult. The question is, Which method in the long run offers the least difficulty and promises the most beneficial results—public control of private property in natural monopolies of the kind under consideration, or public ownership and

management of such natural monopolies? The evidence of a rapid shifting of public opinion manifested at the Chicago Trust Conference was most remarkable, and was to the author a great surprise. When, less than fifteen years ago, he began urging the superior advantages of public ownership and management of these monopolies, he found comparatively little sympathy. During the period that has intervened, however, there has been such a change in sentiment on the part of others—coupled, perhaps, with a slight lessening of ardor on his own part—that at Chicago he found himself standing among those who would be regarded as the conservative element, while those who have figured as opponents of governmental activity were predicting that we would have government ownership of railways sooner than the writer can anticipate.

In the case of natural monopolies of the first sub-class, where we have a limited supply of raw material, such as the natural treasures of the earth, we can aim to secure as a goal government ownership, even if we do not have government operation. In the case of those intricate industries in which the supply of raw material is narrowly limited, it may be that government ownership with private operation will be sufficient, and even socially preferable.*

A third remedy lies in the line of regulation of bequests and inheritances by taxation and other-

* This is discussed at length in another part of the present work on *The Distribution of Wealth.*

wise, in order that in this way vast fortunes may gradually be broken up and wealth more widely diffused. Thus surplus value which has been accumulated by monopoly will in part be absorbed by society for social purposes, and will in part be widely scattered. What is here recommended is simply in the line of what is already going forward throughout the civilized world. For example, in the states of Illinois and New York, as well as in some of the Swiss cantons and the Australasian provinces, great estates inherited by distant relatives or strangers in blood are taxed as high as 20 per cent.* The most conservative jurists † are, in addition, recommending that the laws which tend to prevent the building up of large family estates be strengthened, and that the laws be rendered more favorable to the wide diffusion of property among friends and relatives. Even conservative legislation of this kind, operating continuously from generation to generation, produces a marked effect, as we may see in the case of France, where the laws compelling a very nearly equal division of property among children have produced during the present century a wide diffusion of wealth.

* In the case of Illinois and New York the federal tax is added to the state tax to make the rate of taxation mentioned. Since the above was written the federal tax has been abolished.

† See "Property: Its Rights and Duties in our Legal and Social System"—an address delivered before the New York State Bar Association, January 15, 1895, by the Hon. John F. Dillon, LL.D.

This subject is discussed elsewhere in the author's general work. At the present time it is only necessary to call attention again to the connection of great fortunes with monopoly. It has been said that where supply is so restricted that a combination of men acting as a unit can secure the entire source of supply, we have the conditions of monopoly. But this condition becomes increasingly possible of realization with the growth of large fortunes. When we have a great many men with fortunes running from five to two hundred millions, it is possible to secure control of the source of supply even when this is relatively very large. Originally—that is, if the problem had been taken hold of in time—it might not have been necessary to regulate bequests and inheritances through taxation and otherwise, in order to prevent monopoly. But things have gone so far now that we have to work along this line also.

As a fourth suggestion, there is the aid to be derived from tariff reform, which has already received mention in a different connection. So far as monopoly is due to the tariff, the remedy is very simple. Remove the tariff from imported commodities thus monopolized. To confine ourselves to a single illustration, the reader may be reminded that, according to the statement of its president, the sugar "trust" has been aided by the tariff.

In the fifth place, the reform which is suggested is a reform of the patent law to cover all cases in which patents are made the basis of objectionable

monopolies. Various commissioners of patents have suggested reforms. One is for the government to reserve the right to purchase any patent at an appraised valuation. So, if the Bell Telephone people, for example, have a patent which is objectionable, the right to purchase it at a price fixed by a commission and then to throw it open to the public would be reserved. A second remedy is to grant patents only on condition that the use of the patent shall be free to any one on payment to its owner of a reasonable royalty, the amount of which could be determined by a board in accordance with carefully elaborated principles. Another is to put a tax, increasing each year, on the use of patents, and to let those lapse on which the tax is not paid. Another is to provide forfeiture for the non-use of patents. These constitute in the main the remedies which have been suggested. Some of them have already been tried to a greater or less extent in different countries of the civilized world. So far as safe-guarding the interests of society is concerned, the two best patent laws are those in England and Germany. In our own country we have some excellent features, but we have not done what we could do to prevent monopoly.

In the sixth place, the reform of the law of private corporations along approved lines may be urged. This suggests the establishment of bureaus of corporations in the various states; and in order to prevent one state from preying on another under the shelter of interstate comity and constitu-

tional guarantees, it is desirable to have a federal bureau of private corporations.* At the present time, as has been intimated, one state, for the sake of corporation fees and taxes, may, by its loose legislation, induce men to form corporations which, though formed in a manner that is socially injurious and though lacking all proper supervision, have nevertheless the right as a matter of fact to do business throughout the country. New Jersey has hitherto been pre-eminently the home of the so-called trust formations, but now Delaware is avowedly outbidding New Jersey in the attempt to secure incorporations under terms which will increase her revenues, but which will remove all effective control over private corporations. It seemed to be a very general opinion at the Trust Conference in Chicago — and, in fact, one from which there was only slight dissent — that the time has come for the formation of some kind of federal bureau to exercise general supervision over private corporations. Perhaps the best model that can be suggested is the office of the Controller of the Currency, which exercises supervision over national banks; and the aim should be to secure the same sort of effective control over all private corporations engaged in interstate commerce. With state and federal bureaus acting together, it should be possible to exercise the desired control over private corporations, whether engaged in state business or in business involving interstate commerce. The sole purpose of this control should be honesty and

* Since the above was written such a bureau has been established.

individual responsibility; and to secure this, complete publicity is necessary.

This is not the place to go into this subject in detail, for a treatise on private corporations and their reform would, if at all adequate, fill a much larger volume than the present one. This discussion is designed simply to show the general direction of the desired movement for supervision. The proposal is to bring it about that some one shall be accountable for every act of a private corporation, and that measures shall be devised for fastening individual responsibility upon him. And this is not by any means utopian. It is measurably secured in France, Germany, and England, and also in the case of our own national banks. Let us consider, for instance, the issue of a prospectus by a private corporation under our proposed plan of regulation. This prospectus should be signed, and those signing it should be held responsible, both to investors and to the general public, for the accuracy of its statements. It should be possible for any one injured to recover damages, and serious misrepresentations should be a criminal offence. It should be possible for any shareholder to enforce his rights. This would add to the responsibility of the directors, and if it should diminish the number of directorships held by one person—and this has been suggested—so much the better. The director should be a man who directs—not a blind man leading other blind men into the ditch.

Especially should no misrepresentation be per-

mitted in regard to capital invested. The provisions of the National Bank Act, in so far as they have to do with over-capitalization, may be somewhat too strict to be applicable to general manufacturing and commercial business; but even with them, discretion in the matter of over-capitalization should be confined to very narrow limits. It cannot always be told in advance how much capital is going to be needed, and it may be advisable to permit the issue of shares half paid up, with liability for the full nominal amount of the shares; but it should be clearly and explicitly stated exactly how much is paid in, so that no one may be deceived on this point. The purpose of a provision against over-capitalization is to prevent deception of investors and creditors, and also to bring it about that in case it may be desirable for the public to regulate or to purchase a business, an excessive valuation may not be successfully set up as a basis for permissible charges in the case of regulation or as a basis of negotiations in the case of purchase.*

But this is as far as the present writer is prepared to go in acceptance of the recommendation of vari-

* As this is a matter of such grave importance, it is appropriate to reinforce it by the reprint of a circular issued by a company which makes it its business to induce people to form corporations in Delaware. The reprint will be found in the Appendix.

ous economists that a commission should be appointed to regulate trusts. We must limit regulation of private business if private business is to be carried on successfully. Some of us can be regulated by all of us, but how everybody is going to be regulated indefinitely by everybody cannot well be explained. The attempted regulation becomes burdensome; there is opposition to it all along the line, and the struggle is attended with political corruption. It is difficult to escape the conclusion that if it has become necessary to appoint a commission to regulate all the great businesses of modern times, the present economic order has become bankrupt. This the present author does not believe; but he maintains, on the contrary, that the remedies suggested, with a few others to be mentioned, would prove sufficient for the disease of monopoly. He holds that when movement has gone far along the lines recommended there will still be a wide field of free competition in which there can be a large and spontaneous play of social forces. Sir James Steuart, in his unduly neglected *Political Economy*, says that "the principal object of this science is to employ the inhabitants . . . in such a manner as naturally to create reciprocal relations and dependences between them, so as to make their several interests lead them to supply one another with their reciprocal wants."* It has been one of the

* *Works of Sir James Steuart*, London edition, 1805, vol. i., page 3.

guiding thoughts in the present work to separate the field of monopoly from the field of competition, and to recommend that in the latter there be allowed free play of natural and social forces.

In conclusion, it may be well to speak briefly of some other remedies for certain evils which are not peculiar to monopoly. In so far as department-stores and other sorts of large-scale business are concerned, the principal suggestion of reform is that all those employed by them, directly or indirectly, should be protected from oppressive evils, by the elevation of business to a higher ethical plane. Child-labor can be restricted; the labor of young persons can be regulated; the use of sanitary appliances can be enforced; through the license system and otherwise, as in Massachusetts, the sweat-shop evil can be greatly abated. This is altogether different from the proposals of restrictive legislation, which are so rife, since it places no obstacles in the way of the growth of these businesses, but gives them a full and free field.

Other reforms may be effected through insurance. Old-age insurance — taking the form of pensions—provides for those who are displaced by industrial readjustments. In various countries of the world, insurance is doing a large work in a manner which has been well described by Mr. W. F. Willoughby in his *Workingmen's Insurance*. By insurance, provision can be made against many contingencies of economic life. We in the United States have hardly begun as yet to realize what

can be accomplished by this means. It is bound to receive a great extension and to become one of the problems of the future.

Finally, it must be remembered that the industrial field does not exhaust all social activities. We have a large field outside of the field of industry, and this large field offers many opportunities for individual development, amply offsetting any loss which may result in the industrial field from concentration of business, provided only that this outside field is properly utilized. We have abundantly increasing opportunities for development along physical, intellectual, and moral lines, including the immense educational training-field afforded by the rich, expanding life of modern political society.